THE

ECONOMIC JOURNAL

THE JOURNAL OF

The Royal Economic Society

EDITED BY

R. F. HARROD

AND

E. A. G. ROBINSON

VOLUME LIX

London

MACMILLAN AND CO., LIMITED

NEW YORK: THE MACMILLAN COMPANY

1949

PRINTED IN GREAT BRITAIN BY
RICHARD CLAY AND COMPANY, LTD.,
BUNGAY, SUFFOLK

No. 233 MARCH, 1949 VOL. LIX

THE

ECONOMIC JOURNAL

THE QUARTERLY JOURNAL OF

The Royal Economic Society

EDITED BY

R. F. HARROD AND E. A. G. ROBINSON

London

MACMILLAN AND CO. LIMITED

NEW YORK: THE MACMILLAN COMPANY

Price Ten Shillings net

REVIEWS

No. 234 JUNE, 1949 Vol. LIX

THE ECONOMIC JOURNAL

The Quarterly Journal of

The Royal Economic Society

Edited by

R. F. HARROD and E. A. G. ROBINSON

London

MACMILLAN AND CO. LIMITED

NEW YORK: THE MACMILLAN COMPANY

Price Ten Shillings net

REVIEWS

THE

ECONOMIC JOURNAL

THE QUARTERLY JOURNAL OF

The Royal Economic Society

EDITED BY

R. F. HARROD AND E. A. G. ROBINSON

London

MACMILLAN AND CO. LIMITED

NEW YORK: THE MACMILLAN COMPANY

Price Ten Shillings net

REVIEWS

THE ECONOMIC JOURNAL

MARCH, 1949

PROFESSOR MEADE ON PLANNING

I

THE appearance of yet another book [1] about planning inevitably provokes the question whether its authoritative and distinguished author is "for" or "against." Those whose political sympathies are "against" might on a superficial reading be inclined to claim Mr. Meade as an ally. But they would do well to be warned by the title page, on which is inscribed, as a subtitle, the words "The Liberal-Socialist Solution." Professor Meade is a great believer in the eternal verities which lie behind the liberal economics. His belief in them is, however, associated with a determination to unravel the conditions under which the teachings of liberal economics can be justified. It follows, therefore, that Professor Meade has frequently to admit, implicitly if not always explicitly, that liberal principles may often have to give way to socialist principles. And when such admission is explicit, as it frequently is, it is quite ungrudging. When it comes to the point, Professor Meade takes little heed of such considerations as, late in his life, influenced Marshall, to whom "no socialistic scheme, yet advanced, seems to make adequate provision for the maintenance of high enterprise, and individual strength of character." [2] Having stated, it is true, that "the essential problem of socialization" is "to replace the profit motive in such a way that there is a drive for the utmost efficiency and progress in the industry," Professor Meade goes on quite unblushingly to say that "it is difficult . . . to accept the view that the iron and steel industry or the chemical industry—to take but two examples—should long escape socialization, if they form close monopolies and maintain that their monopoly organization is necessary because it provides important technical economies of production" (p. 68).

[1] *Planning and the Price Mechanism*, by J. E. Meade (George Allen and Unwin, Ltd., 1948. Pp. xiv + 130. 8*s*. 6*d*.).

[2] *Industry and Trade*, p. viii.

In discussing in his Preface whether or not he is a "planner," Professor Meade takes up his position as follows:

> If a planner necessarily believes in a quantitive programme of output, employment and sales for particular industries, occupations and markets and the exercise of such direct controls by the State as are necessary to carry this out, I am certainly no planner. If an anti-planner necessarily denies that the State should so influence the working of the price mechanism that certain major objectives of full employment, stability, equity, freedom and the like are achieved, then I am a planner.

The book is largely devoted to a discussion of how these objectives should be achieved.

Professor Meade's pen flows with customary ease. He belongs to that small band of economists who can attack simultaneously at two different levels, and attack with success. The layman and the elementary student are not put off by any heavy-handed attempts to explain economic jargon, but the serious economist can translate at once, into the technical language which the author eschews, the subtleties and refinements which are indicated for the benefit of the sophisticated. This facility has its dangers. The argument flows so smoothly, and the end of the slender volume is reached with so little fuss, that the reader is in danger of overlooking the provisos on which the main argument depends. To a careful reader, however, the book might appear as an exposition of the circumstances under which "direct control" by the State is justified, and not only as a study of means of avoiding such circumstances. It may be helpful to review Professor Meade's argument from this other point of view, somewhat alien though it may be to his philosophy.

II

The "middle way," writes Professor Meade:

> which—for reasons which will I hope become clear—I have called the Liberal–Socialist Solution, must proceed by making full use of the money and pricing systems, but so controlling those systems that three fundamental conditions are fulfilled: first, that the total monetary demand for goods and services is neither too great nor too small in relation to the total supply of goods and services that can be made available for purchase; secondly, that there is a tolerably equitable distribution of money income and property so that no individual can command more than his fair share of the community's resources; and thirdly, that no private person

> or body of persons should be allowed to remain uncontrolled in a sufficiently powerful position to rig the market for his own selfish ends (p. 11).

I proceed now to consider to what extent in practice Professor Meade's conditions are likely to be fulfilled (they must *all* be fulfilled to satisfy the argument), and in doing so it will be convenient if I may subdivide them, alter their order, and add one or two additional ones which Professor Meade indicates in later passages.

(1) " An essential condition for the proper working of the money and pricing system is that there should be a *tolerably* fair distribution of money income and property." The italics are mine, as also in the quotation : " if the distribution of income and property is *reasonably* equitable, the price offered by one consumer can be taken to be of equal importance to the price offered by another." " Otherwise the money and pricing system is like an efficient and secure election machinery with the freedom ensured by secret ballot—but one where some people are given a thousand votes, and others only one vote, to cast." So far so good. But I do not think that it takes us very far. Apart from being told that " this is essentially a matter for compromise," we are left completely in the dark as to what is, and is not, tolerable and what is, and is not, reasonable ; and what we are to do if what is only just tolerable to the rich seems less than reasonable to the poor. Nor does Professor Meade seem to realise that it is not really a question at all what is reasonable or tolerable, but whether, in any given or attainable situation, the significance of a pound to a rich man is or is not substantially different from what it is to a poor man. It might be intolerable, and perhaps inequitable, to make the distribution of income more equal by methods that do not involve direct Government control. And a greater degree of equality could perhaps be achieved, in the absence of direct Government control, only at the expense of an absolute lowering of the standard of living of the poor. But the fact that it is not feasible or expedient to carry redistribution of income beyond a certain point does not entitle us to argue as though at that point incomes were equally distributed. It is a serious failure on Professor Meade's part to have tacitly accepted the customary argument that we are free to ignore the difference between the value of money to the rich and the poor provided that we can maintain that it would be unreasonable or unwise to attempt to narrow the gulf by customary methods. What is at issue is how wide the gap would still be after Professor Meade had had his way. And it is clear enough

that perforce the gap would still be wide. If this is true the money and pricing system would still be an election machinery where some people are given more votes than others, and Professor Meade's analysis breaks down on a fundamental point—unless it can be maintained that greater equality brought about by methods involving direct Government control was equally intolerable, inequitable or inexpedient.

Actually the issue which usually presents itself is not whether the introduction of direct Government control might reduce inequality but whether its abolition would not accentuate inequality. Professor Meade is himself properly cautious when he considers (in the course of a short Preface) what immediate action he would advocate. It is petrol rationing rather than clothes rationing or food rationing that he would get rid of. But in case anybody, accepting Professor Meade's general thesis, was bold enough to advocate the abolition of rationing of clothing and food he would, to accord with Professor Meade's principles, first have to demonstrate how the resulting increase in inequality of incomes was to be overcome.

(2) Unsatisfactory also, though in a different sense, is the discussion by Professor Meade of what it is desirable to do to improve the distribution of income. The chapter devoted to this subject is punctuated by a series of question marks, and the questions are not rhetorical. The difficulty is, of course, inherent in the subject, the problem, which Professor Meade discusses, being the intractable one of the effect of taxation on incentive. Lady Rhys Williams' fascinating system for rationalising our tax system is given high marks. " But it raises serious issues in the matter of economic incentives. . . . Could the scheme with modifications be made workable? Certainly it deserves the most careful and serious examination " (p. 46).

Professor Meade's proposal for dealing with inheritance will not endear itself to all opponents of planning. He suggests a scheme under which, in the place of death duties, " an upper limit would be imposed on the amount of property which any individual would be permitted to receive in his life-time either by way of inheritance or gift. . . . There would be a number of formidable administrative problems to be overcome. . . . But are they insuperable? " (p. 48).

And then the capital levy, of which there is an interesting discussion. Professor Meade can certainly not be described as hostile. But he admits that " the difficulties are of, course, very great. Are they worth facing? " (p. 55). One wishes that

Professor Meade would answer his own questions—if he does not know the answers who does (this *is* a rhetorical question)?

(3) When he comes to the subject of monopoly Professor Meade abandons the use of the mark of interrogation, and the "anti-planners" who hope for his support are left in little doubt as to the nature of the company which they are keeping. He is only really happy "where there are many competing producers each producing a small proportion of the total supply of a fairly standardized product, and each employing a small proportion of a fairly homogeneous type of labour. . . . In the private enterprise sectors of the economy, producers should be made to compete. . . . Much institutional and legal reform is needed for this purpose" (p. 57). In revising the law of restraint of trade, Professor Meade would disallow, or severely discourage, "agreements between producers and retailers that the retailer should not resell the product at less than a stated price"—the whole problem of resale price maintenance is disposed of in a footnote (p. 59)! Whether Professor Meade would advocate the nationalisation of any industry or trade in which restrictive practices persisted he does not say, but to be consistent he should.

There is no doubt about his attitude in cases in which monopoly "is not merely inevitable" but "is desirable if the maximum wealth is to be produced." He is thinking here not only of public utilities: "In some branches of the iron and steel industry there is not room for more than one or two plants of the most economic size. In coal mining whole coalfields should often be run as single production units." Control in such cases (unless adequate competition can be ensured by subjecting the industry to the blast of foreign competition in the home market) "might take the form of fixing maximum prices. . . . This solution may in some cases be the best available, but it is open to serious difficulties. . . . To attempt to make private enterprise work fruitfully where there is of necessity a wide divergence between the profit motive and the service of the community is to chase a will-o'-the-wisp. Such industries should be socialized" (p. 65), though in some cases "there is no reason why competitive and socialized sectors of the same industry should not compete with one another" (p. 67). Professor Meade does not stop to consider the enormous extent of the socialisation programme in which his argument results. Nor does he point out that in so far as socialisation has not in practice covered the whole field indicated by his criterions (whether the reason is that it is regarded as intolerable, unreasonable or inexpedient or that there has not so far been time), and price control

is impracticable or ineffective, his case against direct Government control, in this same field, once again breaks down.

(4) On the other hand, Professor Meade admits that over a very much wider field action is required to secure that conditions are really competitive—indeed, wherever "consumers have preferences for the product of one particular producer rather than for that of another" (p. 59). If the preferences are "rational," "the State must then determine whether the position is one of sufficient gravity to take the drastic measures of price control or socialization." If the preferences are "irrational," there is more hope for the survival of private enterprise; for then the remedies are consumers' education ("a consumer's advice service for some products might conceivably be run by the State" and "some alteration in the law of libel" would be called for) and discouragement of excessive advertising (Dr. Dalton's abortive tax "would appear to be a neat and comprehensive way of imposing a general discouragement on excessive advertising"—Professor Meade is presumably no lover of "voluntaryism"). But whether Professor Meade really thinks that by these two means competition could in every relevant case be made reasonably perfect is left obscure. The fact is that in any conceivable industrial society there is a wide field in which the individual producer will find himself unable to increase his individual sales without suffering a substantial sacrifice on his price or on expenditure on advertising and salesmanship. If this is the right criterion, as Professor Meade appears to think it is, the inference, which Professor Meade does not explicitly draw, must be a nationalisation programme going far beyond anything that is yet within sight in this country and meanwhile an extensive breakdown of Professor Meade's case in favour of the free operation of the pricing process and against direct Government control.

(5) Nor is it only in selling that competition must be reasonably perfect to satisfy Professor Meade—it must also be so in buying the factors of production. "The profit motive will work to the benefit of society only if producers" cannot exploit "labour (or other factors of production) by restricting the number of workers whom they employ and thereby depressing the wage-rate which they have to offer" (p. 57). If the condition is put in this form its stringency is understated. What is equally necessary is that each individual producer should be able to secure more labour (or other factors of production) without having, in order to do so, substantially to raise the wage which he offers. With unemployment, and an effective trade union, this will usually be the case.

But with labour at all scarce it will be very far from the case. A numerical example may throw light on the orders of magnitude involved. It is not unreasonable to suppose that in a "competitive" industry in which labour was rather scarce an individual employer would have to raise his wage by as much as $3\frac{1}{3}\%$ in order to increase his labour force by 10% (even though a period of a year or two was in mind). If in another industry labour was abundant and an individual employer could increase his labour force without difficulty, paying the standard trade-union rates, there would, for this reason alone, be a difference between the marginal productivities of labour in the two industries of as much as $33\frac{1}{3}\%$. The destruction involved to the doctrine of the free operation of the pricing system would be as serious as that caused by a trade union whose restrictive practices enabled it to maintain wages at one-third above the normal level. It follows that there must be a significant amount of unemployment—widespread in character—if Professor Meade's case against direct Government control is to be upheld.

(6) Indeed, Professor Meade does have to postulate the maintenance of some unemployment to make his system of ideas work. But his reason is a different (though by no means negligible) one. What Professor Meade is worried about is the danger of "an inflationary upward movement of money wages, money costs, and money prices." While "some 4% unemployment may well be the technical minimum to allow for the necessary turnover of jobs in a dynamic society," compared with actual unemployment of $1\frac{1}{2}\%$ to-day, a very much higher percentage of unemployment (by way of illustration, Professor Meade mentions the figure of 10%) may be required "so to reduce the bargaining position of the Trade Unions that the general level of money wage-rates was not pushed up by more than the tolerable" amount per annum, which Professor Meade suggests might be 2% (p. 71). It would then be a matter of choosing between deliberately inflicting more than the necessary technical minimum of unemployment and suffering a continuous rise in money costs and prices at an excessive rate. To escape from this dilemma, Professor Meade enunciates his supply–demand principle for the labour market :

> If, however, the Trade Unions and other bodies concerned with wage-fixing accepted the supply-demand rule that the wage-rate (regardless of bargaining strength) should be raised only in those cases in which there was an excessive demand for labour and should be reduced in those cases in which there was

> an excess of the supply of labour and some growth of unemployment, this tragic dilemma between choosing unemployment or inflation would be avoided.

Professor Meade hopes that, in getting the Trade Unions to swallow this principle, the adoption of the other measures which he advocates might help—"taxation, social services and fiscal measures to ensure an equitable distribution of property," the prevention of excess monopolistic profit margins "by effective measures for the promotion of competition among producers, by price control, by the socialization of monopolistic industries, etc." He relies also on the establishment of a "nice balance" between total demand and total supply, involving an excess of demand for labour in certain occupations and regions, and in others "some tendency for supply to exceed demand" carrying with it "some tendency to unemployment and a reduction in wage-rates" (p. 75).

Professor Meade is not, however, very optimistic. If his supply–demand principle is not acceptable, then:

> Theoretically there are two solutions. The first is to promote as much competition as possible in the labour market without reintroducing inequality of bargaining power. Employers would be prevented from combining to fix wage-rates and workers would be prevented from combining for the same purpose except into separate groups each of which included only workers employed by the same employer. The second is for the State to intervene in the fixing of wage-rates. . . . Both these solutions present very obvious difficulties.

And in his search for knowledge Professor Meade concludes his chapter with the inevitable question: "Is there any reasonably efficient compromise?" (p. 75).

What happens to the case for and against nationalisation of industry, and for and against the free operation of the pricing system without any direct Government control (apart apparently from possible control of wages), if none of Professor Meade's rather fanciful suggestions prove acceptable, we are not told.

(7) Professor Meade relies on his supply–demand principle also to secure a proper distribution of man-power. "Appropriate wage differentials will deflect the demand for labour away from the occupations and localities of great scarcity of labour to those where labour is more plentiful. . . . Moreover, with appropriate wage differentials, labour will be induced to move from the occupations in which there is a surplus to the occupations in

which there is a scarcity of labour." This is illustrated by considering the remedy for a situation in which we might find ourselves "shivering without any clothes in front of a dozen electric fires which cannot be turned on for want of coal to generate the electricity." What is clearly wanted is more labour in producing clothes and coal and less in producing electric fires. If we are to use the price mechanism we must first

> restrict the total purchasing power of goods and services to match the total supply, and . . . take measures to ensure a tolerably fair distribution of such purchasing power. If coal and clothing were then still particularly scarce we could let their prices rise. . . . Wage-rates could then move upwards in coalmining and textiles relatively to light engineering. Is not this the background in which there is the best chance of *Seducing* labour to move where society most needs its effort? (p. 73).

This question is clearly meant to be rhetorical, but I should myself give the unwanted reply. The establishment of wage differentials seems to me a poor method of securing a movement of labour. I should contend that the motive of security is the dominant one in the minds of workers; and the combination of unemployment in one industry with scarcity of labour in another would, I should have thought, be far more effective in driving labour from one to the other than any conceivable wage differential, which will have the effect of reducing the amount of unemployment in the one and of decreasing the number of unfilled vacancies in the other which the employment exchanges have to offer on their books. (The adoption of Professor Meade's principle would mean the establishment of wide divergencies between the marginal productivities of labour in different uses, surely not a desirable result.) Professor Meade believes that this alternative method, which he attempts to decry by describing as the method of *Starvation*, as compared with his method of *Seduction*, would necessitate withholding unemployment benefit from those whom it was desired to transfer. I do not think that this would be necessary at all. What would be necessary is that the redundant workers should become *permanently* unemployed in their previous occupation and that we should not be influenced outside the proper context by Professor Meade's advocacy, designed to render more palatable the technical minimum of unemployment which he feels it is necessary to establish, of "adequate measures to ensure that this unemployment takes the form of short bouts of unemployment for many persons rather

than long period unemployment for a few unfortunate individuals" (p. 70).

(In practice we shall of course continue to have the worst of both worlds—neither adequate wage differentials nor adequate differentiation in the degree of security of employment offered in different occupations.)

(8) There is one further plea that has to be made to the Trade Unions. Movements in the terms of trade must, says Professor Meade, be allowed to exert their full effect on real wages.

If we had not adopted a policy of food subsidies, real wages would have suffered from the recent adverse movement of our terms of trade (or the upward movement of money wages would have been enormously enhanced as a result of an attempt on the part of Trade Unions to defend real wages). If and when international prices of foodstuffs fall, the food subsidies will automatically be reduced in such a way as to deprive the wage-earners of the advantage of the more favourable terms of trade. But Professor Meade would sweep away the food subsidies, substituting (at least in part) "increased children's allowances, old-age pensions, etc." (or a reduction in the burden of income tax on the poorer taxpayers), leaving the beneficiaries free to decide for themselves, in the light of proper economic prices, what they want to buy. Now if anything is certain it is that once children's allowances and old-age pensions had been increased it would not, on account of a favourable shift in the terms of trade, be politically possible to cut them back to their previous levels (which is, of course, the reason why Professor Meade's proposal would be hotly contested by many of those who are themselves opposed to the food subsidies). The result of a fall in the international prices of foodstuffs would therefore under Professor Meade's auspices be that the wage-earners would be better off than they would then be under present Government policy. Professor Meade would no doubt welcome such an outcome. But to some who are with Professor Meade in attacking the food subsidies it would not be welcome and to these it should be an argument in favour of the Government's present policy that it ensures that the wage-earners do not gain on the roundabouts what they avoided losing on the swings.

(9) Professor Meade has, of course, to postulate that total monetary demand is regulated so as to be neither too great nor too small, and the achievement of his "nice balance" forms the subject-matter of an interesting and important chapter.

Here he introduces an additional reason for keeping down

internal monetary demand when it tends to be excessive and when the country is in balance of payments difficulties. " The excessive pull of demand in the home market has undoubtedly been a main factor attracting goods and services away from export markets " (p. 15). " We must reduce the internal pressure of demand, not, of course, to such an extent as to cause serious unemployment, but sufficiently to make it profitable for many more businesses to go all out for alternative export orders " (p. 79). This important doctrine, which is rightly emphasised at several points in the book, will not endear the author to the business men who are always urging the need for a flourishing home market as a basis for successful export trade, or to the politicians who regard any sign of languishing in the home market as the signal for remedial action.

Professor Meade belongs to the school of economists who would like to see the rate of interest play its proper part in the operation of the pricing process. But " an essential condition for the proper working of the money and pricing system is that there should be a tolerably fair distribution of money income and property. . . . The way to prevent the building of factories to produce luxury motor-cars for the rich instead of essential clothing for the poor, is to make the rich poorer and the poor richer—not to have a licensing system for factory building " (p. 28). By stating the case in this way Professor Meade renders his conclusion dependent on sufficient having first been done to improve the distribution of income, and so he deprives it of a good deal of the interest which otherwise it might have enjoyed. He might have been better advised to argue that so long as the rich *are* exercising their purchasing power they might just as well be given luxuries to spend it on—but he would then surely have to allude to the case for subsidising the production of necessaries and taxing that of luxuries.

(10) Professor Meade has also to postulate that other countries, too, will maintain a " nice balance " between internal demand and supply. The chapter on " Financial Policy and the Balance of Payments," and the Appendix on " The International Monetary Fund, the International Trade Organization and the United Kingdom Balance of Payments," throw light on a series of important problems. The author deals with them with habitual lucidity. These are among the most interesting sections of his book. But to discuss them adequately would require a separate article. Two points can, however, be mentioned.

Professor Meade is emphatic that " potential deficit countries

must preserve the right, as they do in the present Draft Charter for an International Trade Organization, to impose discriminatory import restrictions against the goods of a country which is experiencing an uncontrolled deflation " (p. 103). Presumably the exercise of this right would take the form of quantitative import control rather than discriminatory tariffs. If so the question arises how it is compatible with the free operation of the pricing system. This is a question which Professor Meade discusses and his solution is that import licences (in so far as import licensing has to be resorted to) " should be auctioned or otherwise sold to the highest bidders " (p. 87) (a sad footnote suggests that this might be held contrary to the Charter of the International Trade Organisation (p. 104)). Sale on the domestic market of Government-purchased imports would be an alternative—possibly a happier one—but Professor Meade does not discuss it. Incidentally, the problem of reconciling the maintenance of quantitative import controls with the free operation of the pricing system is likely to remain with us for a long time—at any rate so long as our Government believe that " equilibrium " consists of paying for a heavily restricted volume of imports (surely Professor Meade is a bit optimistic in describing as a " hypothetical case " that of our being unable, without exchange depreciation, " to find sufficient remunerative markets to sell all the exports necessary to finance unrestricted imports " (p. 93)).

We can afford to allow the free operation of the pricing system to determine the source of our imports, and the destination of our exports, only if the currencies of all overseas countries are convertible into one another. This presents an obstacle, but Professor Meade is clearly looking forward to a world of free convertibility of currencies (made possible by appreciating some and not solely by depreciating the others). Meanwhile he makes the suggestion that we insist " that overseas purchasers of our goods should pay for them in gold, convertible currencies, or sterling acquired currently by them through the sale of useful goods to us " (thus disposing of the problem of " unrequited exports " (p. 81)).

(11) The reason why we ration clothing is only partly to avoid a lowering of the standard of living of the classes to which clothing is a relatively important object of consumption. The main object is to reserve a substantial part of the production for overseas markets. With a freely operating price system, governed by the maintenance of a nice balance between overall demand and supply, exports of textiles might suffer from a rise in their price,

but that would not matter because their place in export trade would be taken by the commodities of which less would be consumed if more domestic purchasing power could be devoted to clothing. That is not how Professor Meade puts his case, but that is, I think, what it comes to. A fundamental assumption that would have to be made to justify this conclusion—and which has only to be enunciated to reveal its unreality—is that it is as easy to gain extra export trade in one commodity as it is to lose it in another. In practice it will usually require a substantial reduction in price to open up new lines in international trade, even though the traditional lines are faced with highly competitive world markets. It would be most unfair to suggest that Professor Meade pays inadequate attention to the relationship between the terms of trade and the volume of trade—his discussion of the choice between quantitative import restrictions and exchange depreciation is sufficient evidence to the contrary—but I do not think that it is unfair to say that he pays inadequate attention to the dependence of the terms of trade on the *composition* of a given volume of trade, and that this dependence is particularly important for a country which is having difficulty in maintaining its position in international trade.

III

The book is concerned mainly with permanent principles. In the Preface a programme of immediate action is outlined :

(*a*) Inflationary pressure must be reduced. A cut in the food subsidies is advocated, to be balanced in part (perhaps one-half) by an increase in family allowances and old-age pensions ; " as soon as practicable, a straight-forward capital levy on a considerable scale " ; reduction of public expenditure ; a temporary tax on capital investment ; credit restriction. In advocating restrictions on capital development (through some rise in interest rates and otherwise), Professor Meade backs a policy of Mend-and-Make-Do. " The time to undertake the large, revolutionary, long-lasting reorganizations of our capital equipment " is when " the immediate pressure dies down " (p. 29). Here again there seems to me to be a serious danger of overlooking the precariousness of our hold on overseas markets in some of our staple lines of export. It will make all the difference whether we get costs down substantially in the next few years or postpone radical improvement until it is too late. Also the virtues of the complex of rates of interest (long- and short-term) as a determinant of the character

of labour-saving investment really depends on there being sufficient slack in the system for the wage of labour to measure its marginal product. If I understand Professor Meade correctly in this context he would be in favour of leaving the complex of rates of interest to determine investment in the present situation even if none of his other remedies were adopted. If this means that he would allow the rates of interest (ruling considerably higher than at present) to determine how capital investment should be conducted in industries like the coal or cotton industries, in which there is an acute shortage of man-power, he would be allowing the wage of labour in those industries to serve as a measure of the scarcity of labour in those industries. But the wage-level adopted for calculating the usefulness of labour-saving investment in such industries would have to be very considerably in excess of the actual wage, and any calculation based on actual wages in valueless.

(*b*) As I have mentioned, Professor Meade would get rid of petrol rationing, leaving the Government to sell the limited imports of petrol on a free market to the highest bidder. A similar principle might, he suggests, be applied to steel and timber, and, on an experimental basis, to coal. Also he advocates a measure of rent de-restriction, perhaps " accompanied by a temporary and diminishing tax on the occupation of dwellings " and by " higher family allowances and old-age pensions."

(*c*) Professor Meade would drastically control the export of capital, on which we must not squander our Marshall Aid " as we did a large part of the American loan." His plausible suggestion that we should insist on being paid for our exports in convertible currency, or the equivalent, has already been mentioned.

(*d*) Finally, he outlines directions in which something could be done at once to restore the international working of the price mechanism.

IV

Professor Meade attaches a good deal of importance to lightening the bureaucratic burden caused by Government control. But among the positive proposals which he puts forward are a capital levy, a temporary tax on purchases of capital equipment, a temporary and diminishing tax on the occupation of dwellings (designed to secure for the State the increase in rents resulting from rent derestriction), Dr. Dalton's advertisement tax (abandoned by Sir Stafford Cripps), and the imposition of an upper limit on the amount of property which any individual would be permitted to accumulate, otherwise than as a result of his own

savings (which would necessitate recording " in a grand Domesday Book all gifts and inheritance received by each individual " (p. 48)). It would be interesting to hear the comments of the Board of Inland Revenue on these proposals which are partly designed to lighten the work of the Civil Service.

V

It is a reflection of the author's integrity that his book is ill-designed to please. Many of those who temperamentally are attracted by his philosophy will be outraged by the stark audacity with which he describes the conditions which have to be realised before the philosophy can provide a basis for action, and by the uncompromising manner in which he underlines the exceptions to the case against Government interference. On the other hand, many of those who intellectually are charmed by Professor Meade's grace as an economist and a writer will be repelled by his tacit refusal to admit that the exceptions are more comprehensive than the rule. It is a great pity that the book is in appearance directed to those to whom it will be least useful. It is not likely to persuade the " anti-planners " to re-examine the foundations of their belief in " the miracle of a properly working pricing system." On the other hand, it is those who do not believe in the miracle who have most to learn about the operations of the pricing system. But to these, prices are, or should be, a servant. A book which makes prices out to be a master, and which might, read superficially, be regarded as an attack on all those who believe in controls or who administer them, is ill designed to introduce more sense into the designing and operation of controls. This is a great pity. For more sense is certainly needed. And prices should play a more important part. It is not a matter of either black or white (any more than the obvious impractability of free trade as an objective for the next few years justifies our Government's policy of extreme autarchy). The system of controls and their administration could be usefully transformed if economists who understood the operations of the pricing system—both its virtues and vices—would address themselves to the problems involved.

An illustration is provided by Professor Meade's suggestion that " arrangements be made to sell electric current at a much higher price during the hours of the peak load than at other times " (p. viii). The economic case for moving prices about between one part of the day and another is usually much stronger than the case for ensuring that they are stabilised at the correct

levels. But it is seldom practicable to do so. A Government Committee did, in fact, consider the suggestion made by Professor Meade, and the only apparent result is that the price of electric current has been raised during the winter months—a change that may do more harm by encouraging wasteful methods of consuming coal at off-peak hours than it does good by reducing the demand for electricity at the peak.

Then there is the controversy over the substitution of steel for timber. Professor Meade's suggestion that all will be well "if the prices charged to domestic consumers of steel and timber bear the same relationship to each other as the prices at which steel and timber can be purchased in foreign markets" (p. 9) is the kind of thing that is wanted if only it could be divorced from the doctrine that prices should be left to find their own levels (though it would still need adapting to the distinction between hard and soft currencies and to the possibility of widely differing elasticities of overseas supply of steel and timber).

It would be a great pity if Professor Meade's apparent lack of sympathy with those who believe in controls were to discourage those who could profit most from this fascinating book, and who could best appreciate the scientific spirit which livens it, from studying it seriously and applying its lessons.

R. F. KAHN

King's College,
Cambridge.

NATIONAL INCOME, NATIONAL EXPENDITURE AND THE BALANCE OF PAYMENTS—*continued*

VII. The Analysis Applied to Certain Illustrative Problems

We are now in a position to apply the general analysis of the preceding Sections to certain specific and simplified "multiplier" problems. We will consider four examples: (i) a "pure" disturbance due solely to a "spontaneous" change in domestic expenditure in one of the two countries (*e.g.*, country A); (ii) a "pure" disturbance due solely to a "spontaneous" shift in either country, within any given level of domestic expenditure, from B's goods on to A's goods; (iii) a "pure" disturbance due solely to a "spontaneous" change in net foreign lending from A to B; and (iv) a "combined" disturbance due to the payment of reparations from A to B which represents a "spontaneous" increase in net foreign transfers (cf. case (iii) above) and simultaneously causes "spontaneous" changes in the level of domestic expenditure in both countries (cf. case (i) above).

In the tables which illustrate these four cases we shall give values only for Y_a, Y_b and P. That is to say, we shall confine ourselves to the effects of the change on the three basic quantities: the national incomes in the two countries and the total balance of payments between them. It is from the behaviour of these quantities that we can answer the two basic questions: will the change affect the level of employment and economic activity in the two countries, and, will the change cause a balance of payments problem between them? The tables will omit giving the values for D_{ap}, D_{bp}, I_{ap} and I_{bp}. In other words, we shall not give the values of the "policy" changes which will be required in either of the countries to preserve Internal or External Balance, although these can, of course, readily be derived from the equations in Table I (see Vol. lviii, p. 503). These quantities are, however, not so fundamental. We can regard them as being reached by a process of trial and error: some internal or external change in demand takes place in country A which requires some "policy" inflation or deflation of domestic expenditure in order to maintain Internal or External Balance; and the authorities accordingly inflate or deflate domestic expenditure by a process of trial and

error to the extent necessary to preserve whichever Balance they intend to achieve.[1]

Case (i): a "spontaneous" change in country A's domestic expenditure. There is some "spontaneous" increase or decrease in domestic expenditure in country A. This might be due to a boom or slump in private investment or to some governmental measure of reflation or disinflation through a change in public expenditure or a change in the amount of taxes levied. We wish to examine the effect of this "spontaneous" change in country A's domestic expenditure (D_{as}) on her national income (Y_a), on country B's national income (Y_b) and on the total balance of payments between the two countries (P) on the various policy assumptions which we are making.

In this case it is possible to derive from the equations given in Table I the values given in Table II for Y_a, Y_b and P, all of which are there expressed in the form of the "multipliers" which must be applied to the "spontaneous" change in country A's domestic expenditure (D_{as}). Let us first confine ourselves to the case of a Neutral Economy in country A (*i.e.*, rows (1), (2) and (3) of the Table) and consider each of the multipliers in turn.

In a closed economy the "multiplier" $\frac{Y_a}{D_{as}}$ would have the value $\frac{1}{\lambda_a}$. If country B is an Externally Balanced Economy and if changes in country A's and country B's national income do not induce any changes in foreign lending, this for country A is tantamount to being a closed economy. For no part of any increase in country A's expenditure on imports "leaks" permanently abroad, since country B takes deliberate steps to ensure that its own expenditure on country A's exports expands just to the extent necessary to keep her in balance of payments' equilibrium. And since there is assumed to be no induced change in foreign lending, country B will keep her balance of payments in equilibrium only by expanding her demand for A's goods to exactly the same extent as A's imports from her have increased.

[1] Throughout what follows a main theme will be the dilemma of choice between the action which is aimed at achieving Internal, and that which is aimed at achieving External Balance. When, for example, the foreign demand for A's goods falls, should the authorities in A inflate their domestic expenditure in order to preserve A's national income and employment or should they deflate in order to preserve A's balance of international payments? The sharpness of this dilemma is, of course, due to the rigid multiplier assumptions which we are making. If relative prices can be changed, either by changes in exchange rates or by internal inflations and deflations of cost and price levels, the dilemma in large measure disappears.

TABLE II

A "Spontaneous" Change in Domestic Expenditure in Country A

(D_{as} given. $I_{as} = \pi_{as} D_{as}$. $I_{bs} = D_{bs} = L_s = 0$.)

Policy assumed in A.	B.		$\frac{Y_a}{D_{as}}$.	$\frac{Y_b}{D_{as}}$.	$\frac{P}{D_{as}}$.
N	N	(1)	$\frac{1}{\lambda_a} \cdot \frac{1 - \pi_{as} + \mu_b}{1 + \mu_a + \mu_b}$	$\frac{1}{\lambda_b} \cdot \frac{\mu_a + \pi_{as}}{1 + \mu_a + \mu_b}$	$-\frac{\left(1 - \frac{\gamma_b}{\lambda_b}\right)(\mu_a + \pi_{as}) + \frac{\gamma_a}{\lambda_a}(1 - \pi_{as} + \mu_b)}{1 + \mu_a + \mu_b}$
	IB	(2)	$\frac{1}{\lambda_a} \cdot \frac{1 - \pi_{as} - \pi_{bp}}{1 + \mu_a - \pi_{bp}}$	$\boxed{0}$	$-\frac{\mu_a + \pi_{as} + \frac{\gamma}{\lambda_a}(1 - \pi_{as} - \pi_{bp})}{1 + \mu_a - \pi_{bp}}$
	EB	(3)	$\frac{1}{\lambda_a} \cdot \frac{\mu_b + \pi_{bp} + \frac{\gamma_b}{\lambda_b}(1 - \pi_{as} - \pi_{bp})}{\left(1 - \frac{\gamma_a}{\lambda_a}\right)(\mu_b + \pi_{bp}) + \frac{\gamma_b}{\lambda_b}(1 + \mu_a - \pi_{bp})}$	$\frac{1}{\lambda_b} \cdot \frac{\mu_a + \pi_{as} + \frac{\gamma_a}{\lambda_a}(1 - \pi_{as} - \pi_{bp})}{\left(1 - \frac{\gamma_a}{\lambda_a}\right)(\mu_b + \pi_{bp}) + \frac{\gamma_b}{\lambda_b}(1 + \mu_a - \pi_{bp})}$	$\boxed{0}$
IB	IB	(4)	$\boxed{0}$	$\boxed{0}$	$\frac{\pi_{ap} - \pi_{as}}{1 - \pi_{ap} - \pi_{as}}$
	EB	(5)	$\boxed{0}$	$\frac{1}{\lambda_b} \cdot \frac{\pi_{as} - \pi_{ap}}{\mu_b + \pi_{bp} + \frac{\gamma_b}{\lambda_b}(1 - \pi_{ap} - \pi_{bp})}$	$\boxed{0}$
EB	EB	(6)	$\frac{\pi_{ap} - \pi_{bp}}{\lambda_a(\mu_a + \pi_{ap}) + m\lambda_b(\mu_b + \pi_{bp}) + (\gamma_a + m\gamma_b)(1 - \pi_{ap} - \pi_{bp})}$	$-m\frac{Y_a}{D_{as}}$	$\boxed{0}$

Notes. (i) N, IB and EB signify Neutral, Internally Balanced and Externally Balanced Economics respectively.
(ii) The values given in a square □ merely state the policy assumed.

We find, therefore, that when country B has an Externally Balanced Economy and $\gamma_a = \gamma_b = 0$, the multiplier $\frac{Y_a}{D_{as}}$ has the closed-economy value of $\frac{1}{\lambda_a}$ (see row (3) of Table II).

But this closed-economy multiplier is modified by the factor $\frac{1 - \pi_{as} + \mu_b}{1 + \mu_a + \mu_b}$ if there is a Neutral Economy in the rest of the world and by the factor $\frac{1 - \pi_{as} - \pi_{bp}}{1 + \mu_a - \pi_{bp}}$ if there is an Internally Balanced Economy in the rest of the world. (See rows (1) and (2) of Table II.) As the general case, let us suppose that the import content of the "spontaneous" and "policy" increases in domestic expenditure are of the "normal" size in both countries (*i.e.*, $\pi_{as} = \pi_a$, $\pi_{bp} = \pi_b$). Suppose, for the sake of numerical illustration, that $\lambda_a = \lambda_b = 0{\cdot}5$, $\pi_{as} = \pi_a = 0{\cdot}25$ and $\pi_{bp} = \pi_b = 0{\cdot}1$. Then the closed-economy multiplier $= 2$, and this is the same as the multiplier with an Externally Balanced economy in the rest of the world, if $\gamma_a = \gamma_b = 0$. The modifying factor with a Neutral Economy in the rest of the world is 0·63 and with an Internally Balanced Economy in the rest of the world is 0·57, so that in the former case the multiplier $\frac{Y_a}{D_{as}} = 2 \times 0{\cdot}63 = 1{\cdot}26$ and in the latter case $= 2 \times 0{\cdot}57 = 1{\cdot}14$.

This shows how in the two latter cases the "closed-economy" multiplier $\frac{1}{\lambda_a}$ is damped down by the foreign leakage through the increased imports which the growth of domestic expenditure in country A involves. Not all of the increased demand in country A is an increased demand for home-produced goods; and this import "leakage" reduces the extent to which an increase in domestic expenditure stimulates national income and domestic expenditure still further. But with a Neutral Economy in the rest of the world this damping-down factor in country A will itself be reduced. The increased demand in country A for the products of country B will stimulate the national income of country B which will stimulate country B's demand for goods and services which will stimulate country B's demand for imports from country A. Part of the foreign leakage of demand in country A will come back indirectly as a demand for country A's exports.

But this will not occur if there is an Internally Balanced Economy in country B. Indeed, the reverse will happen. When country A spends more on country B's goods as a result of the inflation of country A's domestic expenditure, country B, having

a conscious policy of maintaining a stable national income, offsets the increased foreign demand for her goods by a policy of deflating her domestic expenditure. If the domestic expenditure which she deflates contains some imported goods ($\pi_{bp} > 0$), then her deflation of domestic expenditure will cause a *reduction* in her imports from country A. The foreign leakage for country A, far from being itself diminished, will be intensified by the repercussions in country B. It is for this reason that the multiplier $\frac{Y_a}{D_{as}}$ in row (2) of Table II is smaller than the corresponding multiplier in row (1).

Indeed, it can be seen from Table II that if there is an Internally Balanced Economy in country B and if $\pi_{as} + \pi_{bp} = 1$ the multiplier $\frac{Y_a}{D_{as}}$ will be zero. There is a primary increase of domestic demand in country A equal to D_{as}. Of this $\pi_{as}D_{as}$ causes a rise in demand for imports from country B. Country B experiences an increase in the foreign demand for her goods equal to $\pi_{as}D_{as}$ and she reduces her domestic expenditure by an amount D_{bp} sufficient to cause just that decrease in her own demand for her own goods ($[1 - \pi_{bp}]D_{bp}$) to offset the increased foreign demand for her own goods, $\pi_{as}D_{as}$, so that $(1 - \pi_{bp})D_{bp} = \pi_{as}D_{as}$ or $D_{bp} = \frac{\pi_{as}}{1 - \pi_{bp}}D_{as}$. But the reduced domestic expenditure in country B (D_{bp}) causes a reduction in the demand in country B for country A's goods equal to $\pi_{bp}D_{bp}$ or $\frac{\pi_{bp}\pi_{as}}{1 - \pi_{bp}}D_{as}$. If $\pi_{as} + \pi_{bp} = 1$, $\frac{\pi_{bp}\pi_{as}}{1 - \pi_{bp}}D_{as} = (1 - \pi_{as})D_{as}$, which is exactly equal to the primary increase in the demand for country A's goods caused by the primary increase in country A's domestic expenditure (D_{as}) which started the whole set of repercussions. In other words, the increased demand for country A's own goods caused by country A's "spontaneous" inflation of her domestic expenditure is exactly offset by the reduction in country B's demand for country A's goods which is caused by country B's policy of deflating her domestic expenditure to the extent required to offset the increased demand for her goods by country A. There is no net change in the demand for country A's products and thus no net change in country A's national income.

Let us turn now to the multiplier $\frac{P}{D_{as}}$. If country B has an Externally Balanced Economy this will, of course, be zero, as is shown in row (3) of Table II. In the two other cases it will

be seen that the inflation of demand in country A due to the "spontaneous" increase in her domestic expenditure will directly (and indirectly through the induced effects upon domestic expenditure in country A) raise her demand for imports. The balance of payments will move against her, both because the balance of trade will thus move against her, and also (if $\gamma_a > 0$) because with a larger income she may lend more abroad. This last effect will be partly or wholly offset (if $\gamma_b > 0$) in the case in which country B has a Neutral Economy, because country B will lend abroad more as her income rises. But with an Internally Balanced Economy in B, since B's income will not rise there will be no offset of this kind.

If we assume $\gamma_a = \gamma_b = 0$, we have $\frac{P}{D_{as}} = -\frac{\mu_a + \pi_{as}}{1 + \mu_a + \mu_b}$ and $-\frac{\mu_a + \pi_{as}}{1 + \mu_a - \pi_{bp}}$ in the cases of a Neutral and Internally Balanced Economy in B respectively.[1] (See rows (1) and (2) of Table II.) These expressions make it clear that, so far as the trade elements in the balance of payments are concerned, with a Neutral Economy in country B the unfavourable movement will be less than with an Internally Balanced Economy in country B, since in the former case, as has already been argued, there will be some inflation of domestic expenditure and increased demand for country A's exports in country B, while in the latter there will be a reduced domestic expenditure and a reduced demand for country A's exports in country B. To continue the previous numerical example with $\lambda_a = \lambda_b = 0{\cdot}5$, $\pi_{as} = \pi_a = 0{\cdot}25$, $\pi_{bp} = \pi_b = 0{\cdot}1$ and $\gamma_a = \gamma_b = 0$, Table II shows that with a Neutral Economy in country B the unfavourable movement in country A's balance of payments will be 0·37 times the primary increase in her domestic expenditure and with an Internally Balanced Economy in country B will be 0·43 times this primary increase in her domestic expenditure.

So far we have only considered the effect of a primary increase in domestic expenditure in country A which itself has the "normal" import content ($\pi_{as} = \pi_a$). Let us now consider the effects on country A's balance of current payments and national income of a public-works' policy which is consciously devised so that the primary increase in domestic expenditure (D_{as}) which it

[1] These expressions measure the change in the balance of trade even if γ_a and γ_b are $\neq 0$. This can readily be seen when it is remembered that $P = T - \gamma_a Y_a + \gamma_b Y_b - L_s$ (see equation (15)). Indeed, by means of this equation the multiplier for T can easily be obtained from the multipliers for Y_a, Y_b and P in any of the Tables II to V.

represents is spent solely on goods and services produced in country A. In this case $\pi_{as} = 0$. The multipliers $\frac{Y_a}{D_{as}}$ and $\frac{P}{D_{as}}$ given in Table II show that in this case the adverse effect of a reflationary policy in country A on its balance of current payments is by so much reduced, and the favourable effect upon its national income is by so much increased, by ensuring that the whole of the primary increase in domestic expenditure is spent on home-produced goods. With our numerical illustration with $\lambda_a = \lambda_b = 0{\cdot}5$, $\pi_a = 0{\cdot}25$, $\pi_{bp} = \pi_b = 0{\cdot}1$ and $\gamma_a = \gamma_b = 0$, the values of the multipliers showing the effect of a primary change in domestic expenditure upon the balance of payments and the national income, (*a*) with $\pi_{as} = \pi_a$ and (*b*) with $\pi_{as} = 0$, may be shown as follows :—

	With $\pi_{as} = \pi_a$.	With $\pi_{as} = 0$.
Neutral Economy in country B :		
$\frac{Y_a}{D_{as}}$	1·26	1·63
$\frac{P}{D_{as}}$	− 0·37	− 0·19
Internally Balanced Economy in country B :		
$\frac{Y_a}{D_{as}}$	1·14	1·57
$\frac{P}{D_{as}}$	− 0·43	− 0·22

Let us next consider the internal effects upon country B of the primary inflation or deflation in the domestic expenditure of country A, as measured by the multiplier $\frac{Y_b}{D_{as}}$.

With a Neutral Economy in country B, D_{bp} as well as D_{bs} will be zero. In this case the national income in country B will rise by an amount obtained by applying the closed-economy multiplier of country B $\left(\frac{1}{\lambda_b}\right)$ to the improvement in country B's balance of trade. We have already seen that a primary inflation of country A's domestic expenditure will cause an unfavourable movement in country A's balance of trade equal to $\frac{\mu_a + \pi_{as}}{1 + \mu_a + \mu_b}$ times the primary increase in A's domestic expenditure; and this will measure the favourable movement in country B's balance of trade to which the multiplier $\frac{1}{\lambda_b}$ must be applied to obtain the consequential inflation of country B's national income.

With an Internally Balanced Economy in country B, $\frac{Y_b}{D_{as}}$ will, of course, be zero.

With an Externally Balanced Economy in B there will be no change in the balance of trade except in so far as is required to offset induced changes in foreign lending. Let us assume no induced foreign lending (*i.e.*, $\gamma_a = \gamma_b = 0$). In this case, it will be seen from row (3) of Table II that $\frac{Y_b}{D_{as}} = \frac{1}{\lambda_b} \cdot \frac{\mu_a + \pi_{as}}{\mu_b + \pi_{bp}}$. To prevent any change in the balance of payments, B will in this case need to prevent any change in the balance of trade; and for this purpose country B must engineer such a primary increase in her own domestic expenditure as to cause an increase in country B's demand for country A's goods equal to the increase in country A's demand for country B's goods which has resulted from the primary inflation in country A. The " policy " inflation required in country B's domestic expenditure is $\frac{\mu_a + \pi_{as}}{\mu_b + \pi_{bp}}$ times the " spontaneous " increase in country A's expenditure,[1] and the increase in country B's national income is obtained by applying the closed-economy multiplier $\frac{1}{\lambda_b}$ to this quantity. It is interesting to observe that if the marginal propensity to import in each country which is associated with " spontaneous " or " policy " increases in domestic expenditure is equal to the marginal propensity to import in each country which is associated with the " induced " increases in domestic expenditure (*i.e.*, if $\pi_{as} = \pi_a$ and $\pi_{bp} = \pi_b$) a further simplification is possible. In this case, $\frac{Y_b}{D_{as}} = \frac{\pi_a}{\pi_b} \cdot \frac{1}{\lambda_a}$.

So far we have only considered the cases in which there is a Neutral Economy in country A (rows (1), (2) and (3) of Table II). It can be seen from the rest of Table II [2] that if country A has an

[1] This can be seen clearly in the following way. $\pi_{as}D_{as}$ is the increase in country A's imports due to the primary increase in its domestic expenditure. $\frac{1}{\lambda_a} D_{as}$ is the increase in country A's income, $\frac{1 - \lambda_a}{\lambda_a} D_{as}$ the " induced " increase in its domestic expenditure, and $\frac{\pi_a(1 - \lambda_a)}{\lambda_a}$ or $\mu_a D_{as}$ the " induced " increase in its imports, so that $(\mu_a + \pi_{as})D_{as}$ is the total increase in country A's imports. Similarly $(\mu_b + \pi_{bp})D_{bp}$ is the total increase in country B's imports; and since D_{bp} is such as to make $T = 0$ these two quantities are equal.

[2] This table does not show the values for $\frac{Y_a}{D_{as}}$, $\frac{Y_b}{D_{as}}$ and $\frac{P}{D_{as}}$ for those cases in which there is a Neutral Economy in B and an Internally or an Externally Balanced Economy in A, or an Internally Balanced Economy in B and an Externally Balanced Economy in A. These results could be obtained from the values of $\frac{Y_b}{D_{bs}}$, $\frac{Y_a}{D_{bs}}$ and $\frac{P}{D_{bs}}$ obtained from Table I for policy combinations 2, 3

Internally Balanced or an Externally Balanced Economy a "spontaneous" increase in domestic expenditure in country A will have no effect at all on either country's national income or balance of payments, if the import content of the "spontaneous" increase in domestic expenditure is the same as the import content of the "policy" decrease in domestic expenditure which is undertaken to offset it (*i.e.*, if $\pi_{as} = \pi_{ap}$). The reason should be clear. If there is a "policy" decrease in domestic expenditure equal in magnitude to the "spontaneous" increase in domestic expenditure and if each has the same import content, then the "policy" change will exactly offset the effects of the "spontaneous" change on income and imports. Nothing will change. It is only in so far as the import contents differ that there will be further repercussions of any kind.

Case (ii): a "spontaneous" shift of demand in either country from country B's goods on to country A's goods. We can now turn to the second type of primary disturbance. Either in country A or in country B—it makes no difference—there is a shift of demand, within the ruling level of domestic expenditure, from country B's goods on to country A's goods. This is defined as a "spontaneous" increase in country A's balance of trade (T_s) equal in size to the primary increase in expenditure on country A's goods and decrease in expenditure on country B's goods. What is the final effect on the national incomes of both countries and on the balance of current payments between them?

Let us first compare the position of a Neutral Economy in both countries (row (1) of Table III) with that of an Internally Balanced Economy in both countries (row (4) of Table III); and let us first consider the final effect of the "spontaneous" shift in the balance of trade (T_s) upon the balance of payments between the two countries. Let us once more simplify by assuming no "induced" foreign lending (*i.e.*, $\gamma_a = \gamma_b = 0$), so that in both cases the change in the balance of trade is equal to the change in the total balance of payments, expressed by $\frac{1}{1 + \mu_a + \mu_b}$ in the case of the Neutral Economies and by $\frac{1}{1 - \pi_{ap} - \pi_{bp}}$ in the case of the Internally Balanced Economies.[1]

---

and 5 respectively, and then writing throughout subscript a for subscript b and altering the sign of P. But the general argument in the text would remain unchanged.

[1] Applying equation (15) to rows (1) and (2) of Table III it is clear that these are the expressions for the change in the balance of trade even if γ_a and $\gamma_b \neq 0$.

TABLE III

A "Spontaneous" Shift of Demand from B's Goods to A's Goods

(T_s $(= -I_{as} + I_{bs})$ is given. $D_{as} = D_{bs} = L_s = 0$)

Policy assumed in A.	B.		$\frac{Y_a}{T_s}$.	$\frac{Y_b}{T_s}$.	$\frac{P}{T_s}$.
N	N	(1)	$\frac{1}{\lambda_a}\cdot\frac{1}{1+\mu_a+\mu_b}$	$-\frac{1}{\lambda_b}\cdot\frac{1}{1+\mu_a+\mu_b}$	$\frac{1-\frac{\gamma_a}{\lambda_a}-\frac{\gamma_b}{\lambda_b}}{1+\mu_a+\mu_b}$
	IB	(2)	$\frac{1}{\lambda_a}\cdot\frac{1}{1+\mu_a-\pi_{bp}}$	$\boxed{0}$	$\frac{1-\frac{\gamma_a}{\lambda_a}}{1+\mu_a-\pi_{bp}}$
	EB	(3)	$\frac{1}{\lambda_a}\cdot\frac{\frac{\gamma_b}{\lambda_b}}{\left(1-\frac{\gamma_a}{\lambda_a}\right)(\mu_b+\pi_{bp})+\frac{\gamma_b}{\lambda_b}(1+\mu_a-\pi_{bp})}$	$-\frac{1}{\lambda_b}\cdot\frac{1-\frac{\gamma_a}{\lambda_a}}{\left(1-\frac{\gamma_a}{\lambda_a}\right)(\mu_b+\pi_{bp})+\frac{\gamma_b}{\lambda_b}(1+\mu_a-\pi_{bp})}$	$\boxed{0}$
IB	IB	(4)	$\boxed{0}$	$\boxed{0}$	$\frac{1}{1-\pi_{ap}-\pi_{bp}}$
	EB	(5)	$\boxed{0}$	$-\frac{1}{\lambda_b}\cdot\frac{1}{\mu_b+\pi_{bp}+\frac{\gamma_b}{\lambda_b}(1-\pi_{ap}-\pi_{bp})}$	$\boxed{0}$
EB	EB	(6)	$\frac{1}{\lambda_a(\mu_a+\pi_{ap})+m\lambda_b(\mu_b+\pi_{bp})+(\gamma_a+m\gamma_b)(1-\pi_{ap}-\pi_{bp})}$	$-m\frac{Y_a}{T_s}$	$\boxed{0}$

Notes.—See bottom of Table II, p. 19.

It has already been pointed out by a number of authors [1] that, in a world of Neutral Economies, any primary improvement in a country's balance of payments will be "damped down" before a new equilibrium is reached. Consider the relationship of country A with the rest of the world (country B). Assume that there is a change of taste which causes purchasers to shift their demand away from the goods of country B to the goods of country A. There is an increase in country A's exports and in country B's imports. The balance of current payments of country A becomes more favourable and that of country B less favourable. But the increased demand for country A's exports increases the incomes of those employed in country A in producing exports; they spend some part of their increased incomes on purchases of more goods and services; some of this increased expenditure is on imported goods and services, some on home-produced goods and services; this causes another round of increased purchases both of imports and of home-produced goods; and so on. In the end home incomes and imports will have risen. Conversely, in country B the increased imports will have attracted purchasing power away from expenditure on home-produced goods; the incomes of those producers whose products are replaced by the imports will fall; there will result a decline in incomes in country B, and the imports of country B will decline again by an amount determined by country B's propensity to import. Thus the primary improvement in country A's balance of current payments will be damped down by this secondary increase in country A's imports, and secondary decline in country B's imports, due to the repercussions on incomes and expenditure in the two countries.[2]

This is shown by the multiplier $\frac{P}{T_s}$ in row (1) of Table III, which with our illustrative numerical values of $\lambda_a = \lambda_b = 0{\cdot}5$, $\pi_a = 0{\cdot}25$, $\pi_b = 0{\cdot}1$ and $\gamma_a = \gamma_b = 0$, has the value of 0·74. In other words, as a result of the secondary increase in imports in country A and decrease in imports in country B only about three-

[1] See, for example, A. J. Brown, "Trade Balances and Exchange Stability," Oxford Economic Papers, Number 6, April 1942, and Joan Robinson, "The Foreign Exchanges" in *Essays in the Theory of Employment.*

[2] If we allowed for "induced" foreign lending and assumed γ_a and $\gamma_b > 0$, there would be a further factor "damping down" the improvement in A's total balance of payments, since the increase in A's income would induce her to lend more abroad and the decline in B's income would induce her to lend less abroad. The influence of this factor can be seen in the expression for the multiplier $\frac{P}{T_s}$ in row (1) of Table III.

quarters of any primary improvement in country A's balance of payments will result in a lasting improvement in that balance.

But the position is completely changed if countries A and B both have Internally Balanced Economies. Assume again a primary change of taste within any given levels of domestic expenditure in the two countries which increases country A's exports and/or decreases her imports. This will mean that there is an increased demand for country A's products and a decreased demand for country B's products. Country A, in order to avoid an inflationary pressure of demand, must take domestic measures to reduce the internal demand for goods and services. Thus it may raise interest rates or take other measures to reduce domestic expenditure on new capital development; or it may reduce Government expenditure without reducing taxation; or it may reduce spendable incomes by raising rates of taxation, or take other measures to reduce private expenditure on goods and services for personal consumption. Whichever method it adopts, there will result a reduction in demand not only for home-produced goods and services but also for imported goods and services. At the same time country B must be adopting the opposite policy of stimulating its domestic expenditure on goods and services in order to offset the primary reduction in demand for its products. But this " reflation " of domestic expenditure in country B will increase country B's demand for imported goods and services as well as her demand for her own home-produced goods and services. Thus the primary increase in country A's balance of current payments, far from being " damped down," will be " magnified up " in these conditions by the restriction of domestic demand in country A which will lead to some further reduction in her demand for imports and by the reflation of domestic demand in country B which will lead to some further increase in her demand for imports.[1] Moreover, in this case since the national incomes of both countries are constant there can be no damping effect on the improvement in A's total balance of payments from an

[1] It is an interesting conclusion from this that in a world of Internally Balanced Economies various measures will be made more effective in restoring equilibrium to disordered balances of payments than they would be in a world of Neutral Economies. Thus, suppose country A's balance of current payments to need to be increased. Assume some change (*e.g.*, a depreciation of country A's currency, a reduction in country B's tariff, etc.) which increases country A's balance in the first place by 100. In a world of Neutral Economies the secondary inflation of domestic expenditure in country A and deflation in country B will damp this down to, say, 75. In a world of Internally Balanced Economies the secondary deflation of domestic expenditure in A and inflation in B will magnify this up to, say, 150.

increased net lending from A to B, however great γ_a and γ_b may be.

This result is illustrated by the multiplier $\frac{P}{T_s}$ in row (4) of Table III which with $\pi_{ap} = 0{\cdot}25$ and $\pi_{bp} = 0{\cdot}1$ would equal 1·54.[1] In other words, the final improvement in country A's favourable balance of trade would, as a result of the repercussions of the increased domestic expenditure required in country B to keep country B's national income stable and of the reduced domestic expenditure required in country A to keep country A's national income stable, be about 50% greater than the primary shift of demand from country B's goods to country A's goods.

The illustration that has just been given assumes that the "policy" changes in domestic expenditures in countries A and

[1] This multiplier becomes very large as $\pi_{ap} + \pi_{bp}$ approaches unity, becomes infinite if $\pi_{ap} + \pi_{bp} = 1$ and becomes negative if $\pi_{ap} + \pi_{bp} > 1$. This last condition is improbable but not impossible. It would occur, for example, if both countries spent on imports more than 50% of any marginal changes in their total domestic demands. This would mean that if there were a primary increase in the balance of trade of country A, country A should "plan" its domestic expenditure on the assumption that there was, in fact, going to be ultimately a net *decrease* in its balance of trade and should accordingly *inflate* its domestic expenditure; and country B, enjoying a primary *decrease* in its balance of trade, should adopt the apparently perverse policy of *deflating* its domestic expenditure. The inflation in country A will very little increase the demand for country A's goods but will very greatly increase demand for country B's goods; similarly, the deflation in country B will very little decrease the demand for country B's goods but will very much increase the demand for country A's goods. These readjustments of domestic expenditure will, therefore, cause a net *decrease* in the demand for country A's goods and a net *increase* in the demand for country B's goods, which will work in the opposite direction to the primary increase in country A's balance of trade. The ultimate position will be one in which there is a net *decrease* in country A's balance of trade; her domestic expenditure will have risen to counterbalance this; and the effect of the rise in her domestic expenditure on imports will have been so great as to remove the whole of the primary increase in her balance of trade and to have turned it into a net decrease equal to the increase in her domestic expenditure. This may be regarded as a "perverse" case. The "normal" case is where $0 < \pi_{ap} + \pi_{bp} < 1$. The ingenious reader may be amused to ring the changes on the combinations of "perverse" and "normal" effects of the values for $\pi_{ap} + \pi_{bp}$ with the "perverse" and "normal" effects of an exchange depreciation on a country's balance of current payments. Suppose price elasticities of demand for imports in both countries to be so small that a depreciation of country A's currency has the perverse effect of causing a *reduction* in her favourable balance of trade. If both countries had Internally Balanced Economies and $\pi_{ap} + \pi_{bp} > 1$, then none the less the final effect would be to improve country A's balance of trade. A normal exchange-rate effect (*i.e.*, depreciation causing a primary improvement in the balance of trade) plus a normal $\pi_{ap} + \pi_{bp}$ effect, or a perverse exchange-rate effect plus a perverse $\pi_{ap} + \pi_{bp}$ effect will enable exchange depreciation to improve the balance of trade. But if one effect is normal and the other perverse, exchange depreciation with Internally Balanced Economies will worsen the balance of trade.

B which are undertaken expressly to offset changes in the foreign demand for each country's products, themselves contain the "normal" net import content (*i.e.*, $\pi_{ap} = \pi_a$ and $\pi_{bp} = \pi_b$). But this might not be the case. Suppose that each country selected policies for stabilising demand which affected only the demand for their own home-produced products so that $\pi_{ap} = \pi_{bp} = 0$. This might be the case, for example, if when there was a primary improvement in country A's balance of current payments of, say, 100, then country A decreased a public-investment programme which had no import content by 100 and country B increased a public-investment programme which had no import content by 100. The increased public-investment demand in country B for country B's goods of 100 would exactly offset the primary reduction of 100 in the net demand for country B's exports (or in her own net shift of demand from home-produced to imported goods). And similarly in country A. There would be no "magnifying up" of the primary improvement of the balance of current payments of 100, and $\frac{P}{T_s}$ would equal 1. But if country A chose to deflate in a way which meant that it had to reduce domestic expenditure by 133⅓ in order to reduce its own demand for its own products by 100, the remaining 33⅓ would represent a reduction in imports and so a further improvement in its balance of current payments.

The effects of these changes in the balance of trade on the levels of national income in the two countries are readily explained. In the case of Neutral Economies in both countries (row (1) of Table III), the final improvement in country A's balance of trade is $\frac{1}{1 + \mu_a + \mu_b}$ times T_s; and there is an inflation of the national income in country A equal to $\frac{1}{\lambda_a}$ times, and a deflation of the national income in country B equal to $\frac{1}{\lambda_b}$ times, this sum. With Internally Balanced Economies (row 4) there is, of course, no change in either national income.

Row (2) of Table III shows a final effect upon the balance of payments $\left(\frac{P}{T_s}\right)$ intermediate between those of rows (1) and (4). In country A there is a Neutral Economy; the "spontaneous" improvement in her balance of trade leads to a rise in her national income; this leads both to some increase in her imports and also, if γ_a is >1, to some increase in her foreign lending; and these are factors damping down the primary improvement in her balance

of payments and are shown in the term $+\mu_a$ in the denominator, and in the term $-\frac{\gamma_a}{\lambda_a}$ in the numerator, of the multiplier $\frac{P}{T_s}$. On the other hand, in country B there is an Internally Balanced Economy; the primary worsening of her balance of trade causes her to engineer an offsetting primary increase in her domestic expenditure; this leads to some further increase in her imports; and this is a factor "magnifying up" the primary worsening of her balance of trade, which is shown in the term $-\pi_{bp}$ in the denominator of the multiplier $\frac{P}{T_s}$. Whether there is a net "damping" or "magnifying" effect depends upon whether $\mu_a + \frac{\gamma_a}{\lambda_a} >$ or $< \pi_{bp}$. The final internal changes are easily seen. In country A the national income rises by an amount, shown by applying the multiplier $\frac{1}{\lambda_a}$ to $\frac{1}{1+\mu_a-\pi_{bp}}$, which is the final improvement in her balance of trade; and in country B there is no change in the national income.

We may next consider rows (3) and (5), which, it will be seen, lead to the same final outcome if $\gamma_b = 0$. For in these conditions $\frac{Y_a}{T_s} = 0$ and $\frac{Y_b}{T_s} = -\frac{1}{\lambda_b} \cdot \frac{1}{\mu_b + \pi_{bp}}$ in both cases. In both cases country B so deflates her domestic expenditure, and thereby her national income, as to cause a reduction in her demand for imports sufficient to offset the primary worsening in her balance of payments and to ensure that there is in the end no net change in that balance. Now if $\gamma_b = 0$, B will not need to offset any change in foreign lending induced by her own adjustments of her national income She will only have to adjust her national income so as to induce a change in her imports sufficient to offset the "spontaneous" change in the balance of trade and any changes in the balance of trade or foreign lending induced by a change in country A's national income. But there will in fact be no such "induced" changes of A's imports or foreign lending, because in the case of row (5) country A adopts a conscious policy which prevents any such changes, while in the case of row (3) if country B just offsets the "primary" shift of demand to A's goods by a "policy" deflation of her own demand for A's goods of exactly the same magnitude there will in fact be no net increase in the demand for A's goods. So far as A is concerned nothing will have happened and her national income will not rise. But

if γ_b is > 0, then, whereas in the case of row (5) it will still be A's policy to keep her national income constant, in the case of row (3) there will now be some rise in her national income. For as B deflates her national income in order to reduce her imports so as to offset the effect on the balance of payments of the primary shift of demand away from her goods, there will be an "induced" decline in her lending to A. The reduction in her demand for imports need not, therefore, go quite so far as the primary shift of demand from her goods, since part of her balance-of-payments gap will now be filled by her reduced lending to A. A, therefore, will experience some net increase in the demand for her goods, and with a Neutral Economy will, therefore, experience some net rise in her national income.

There remains row (6) of Table III. In view of the primary shift of demand from B's to A's goods, A adopts a policy of inflating her domestic expenditure and so her national income to restore equilibrium to the balance of payments, and B deflates for the same purpose. B's deflation is m times as large as A's inflation. As a special case it may be interesting to see what happens as A takes less and less of the responsibility for restoring equilibrium by inflating and leaves more and more of the responsibility to B to restore equilibrium by deflating. At the limit when A will do nothing and $\frac{1}{m} = 0$, then, it can be seen from Table III, the multipliers in row (6) become exactly the same as those in row (5). A in fact keeps her national income constant and B has to make the whole change in her own.

As another special case, let us assume that $\pi_{ap} = \pi_a$ and $\pi_{bp} = \pi_b$ (*i.e.*, that the "policy" changes in domestic expenditure have the normal import content). If in addition $\gamma_a = \gamma_b = 0$, the multipliers for the two national incomes reduce to the following simple formulæ which give the "weights" to be attached to the inflation in A and the deflation in B :—

$$\frac{Y_a}{T_s} = \frac{1}{\pi_a + m\pi_b} \text{ and } \frac{Y_b}{T_s} = -\frac{1}{\frac{\pi_a}{m} + \pi_b}.$$

Case (iii): a "spontaneous" change in foreign lending or some similar financial transfer from A to B. The multiplier effects of a "pure" case of primary disturbance due to a change in net foreign lending can be fairly quickly discussed. By a "pure" case of this type we mean one in which there is not associated with the increased lending from A to B any "spontaneous"

TABLE IV

A "Spontaneous" Change in Net Foreign Lending

(L_s is given. $T_s = D_{as} = D_{bs} = 0$)

Policy assumed in A.	B.		$\frac{Y_a}{L_s}$.	$\frac{Y_b}{L_s}$.	$\frac{P}{L_s}$.
N	N	(1)	0	0	-1
	IB	(2)	0	$\boxed{0}$	-1
	EB	(3)	$\frac{1}{\lambda_a}\cdot\frac{\mu_b+\pi_{bp}}{\left(1-\frac{\gamma_a}{\lambda_a}\right)(\mu_b+\pi_{bp})+\frac{\gamma_b}{\lambda_b}(1+\mu_a-\pi_{bp})}$	$\frac{1}{\lambda_b}\cdot\frac{1+\mu_a-\pi_{bp}}{\left(1-\frac{\gamma_a}{\lambda_a}\right)(\mu_b+\pi_{bp})+\frac{\gamma_b}{\lambda_b}(1+\mu_a-\pi_{bp})}$	$\boxed{0}$
IB	IB	(4)	$\boxed{0}$	$\boxed{0}$	-1
	EB	(5)	$\boxed{0}$	$\frac{1}{\lambda_b}\cdot\frac{1-\pi_{ap}-\pi_{bp}}{\mu_b+\pi_{bp}+\frac{\gamma_b}{\lambda_b}(1-\pi_{ap}-\pi_{bp})}$	$\boxed{0}$
EB	EB	(6)	$-\frac{1-\pi_{ap}-\pi_{bp}}{\lambda_a(\mu_a+\pi_{ap})+m\lambda_b(\mu_b+\pi_{bp})\div(\gamma_a+m\gamma_b)(1-\pi_{ap}-\pi_{bp})}$	$-m\frac{Y_a}{L_s}$	$\boxed{0}$

Notes.—See bottom of Table II, p. 19.

change in the demand for domestic or foreign goods either in A or B. People purchase securities in B's capital market instead of in A's capital market, and that is all there is to it.

Table IV shows the multipliers which result from the application of these strict assumptions to the equations of Table I. In those cases in which neither country is adopting an Externally Balanced Economy (see rows (1), (2) and (4) of Table IV) there will be a change in the final balance of payments exactly equal to the primary change in net foreign lending and nothing else will alter at all. The reason for this is clear. The primary change in foreign lending does not itself directly cause any change in the demand for the goods of either country. There will be no forces causing any change unless the disequilibrium in the total balance of payments which results from the foreign lending causes some country to adopt a "policy" change in its domestic expenditure or imports in order to restore an External Balance.

In the case in which country B inflates its domestic expenditure and national income to bring about an increase of imports to preserve an External Balance, country A will also experience some rise in its national income as a result of the increased demand for its exports, if it has a Neutral Economy. (See row (3) of Table IV.) If country A has an Internally Balanced Economy, then country B, in order to preserve an External Balance, need carry its inflation less far, since A will deflate its domestic demand in order to prevent B's increased demand for its exports from inflating its national income and this will reduce A's demand for B's goods and thus help to restore equilibrium to the balance of payments. Moreover, in this case since there will be no rise in A's income there will be no "induced" increase in A's lending abroad, even if $\gamma_a > 0$. Indeed, if $\pi_{ap} + \pi_{bp} = 1$, B will not in fact experience any net inflation of her national income. The inflation which she will carry out in her domestic expenditure to preserve an External Balance will be followed by a deflation in A to prevent B's increased demand from affecting A's income. But this reduced demand in A will just offset the increased demand in B as far as B's income is concerned, if $\pi_{ap} + \pi_{bp} = 1$. (See row (5) of Table IV.) If both A and B have Externally Balanced Economies, there will be a deflation of domestic expenditure in A and an inflation in B. This will cause a deflation of A's income and an inflation of B's income, as shown in row (6) of Table IV, unless once more $\pi_{ap} + \pi_{bp} = 1$, in which case the deflation of domestic demand in A and the inflation of

domestic demand in B will just cancel out so far as the national incomes of both A and B are concerned.

Case (iv): a reparations payment is made from A to B, which represents a "spontaneous" financial transfer from A to B; but the raising of the revenue in A and its disposal in B causes a simultaneous "spontaneous" decrease of domestic expenditure in A and increase of domestic expenditure in B. This is another case of combined primary disturbance, an event which simultaneously causes an increased financial transfer from A to B and a decrease of domestic expenditure in A and an increase in B. Now it is probable that in fact the "spontaneous" decrease in domestic expenditure in A would be rather less than the reparations payment even if there were an increased tax revenue equal to the whole of the reparations to be paid, since some part of the revenue raised to make the payment to B would probably come out of savings rather than expenditure in A. Similarly, the "spontaneous" increase in domestic expenditure in B might well be rather less than the total reparations received from A. But for the purposes of simplification we shall assume that there is a reparations payment to be transferred equal to L_s, and that there is a "spontaneous" decline in A's domestic expenditure equal to the whole of this ($-D_{as} = L_s$) and a "spontaneous" increase in B's domestic expenditure of the same size ($D_{bs} = L_s$). On these assumptions the multipliers given in Table V can be derived from the equations given in Table I.[1]

Table V has one quite outstanding feature, and we will confine our comments to remarking upon it. In every case [2] (except where A has an Internally Balanced Economy) the payment of reparations by A will mean a deflation of A's national income if $\pi_{as} + \pi_{bs} < 1$, no change if $\pi_{as} + \pi_{bs} = 1$ and actually an inflation if $\pi_{as} + \pi_{bs} > 1$. In every case (except where B has an Internally Balanced Economy) the receipt of reparations by B will mean an inflation of B's income if $\pi_{as} + \pi_{bs} < 1$, no change if $\pi_{as} + \pi_{bs} = 1$ and actually a deflation if $\pi_{as} + \pi_{bs} > 1$. In every case[3] (except where one or both countries have an Externally Balanced Economy) the transfer will cause an unfavourable movement in A's balance of payments if $\pi_{as} + \pi_{bs} < 1$, no move-

[1] The reader can work out for himself from the equations given in Table I what the multipliers would be if it were assumed that only a proportion, k_a, of the reparations caused a "spontaneous" decline in A's domestic expenditure ($-D_{as} = k_a L_s$) and that only a proportion, k_b, of the reparations caused a "spontaneous" increase in B's domestic expenditure ($D_{bs} = k_b L_s$).

[2] Assuming in the special case of row (3) of Table VI that $\gamma_a > 0$.

[3] Assuming in the case of row (4) of Table VI that $\pi_{ap} + \pi_{bp} < 1$.

TABLE V

A Reparations Transfer from A to B

(Reparations Transfer $= L_s$. $-D_{as} = D_{bs} = L_s$. $I_{as} = \pi_{as} D_{as}$. $I_{bs} = \pi_{bs} D_{bs}$)

Policy assumed in A.	B.		$\frac{Y_a}{L_s}$.	$\frac{Y_b}{L_s}$.	$\frac{P}{L_s}$.
N	N	(1)	$-\frac{1}{\lambda_a}\cdot\frac{1-\pi_{as}-\pi_{bs}}{1+\mu_a+\mu_b}$	$\frac{1}{\lambda_b}\cdot\frac{1-\pi_{as}-\pi_{bs}}{1+\mu_a+\mu_b}$	$-\frac{\left(1-\frac{\gamma_a}{\lambda_a}-\frac{\gamma_b}{\lambda_b}\right)(1-\pi_{as}-\pi_{bs})}{1+\mu_a+\mu_b}$
	IB	(2)	$-\frac{1}{\lambda_a}\cdot\frac{1-\pi_{as}-\pi_{bs}}{1+\mu_a-\pi_{bp}}$	$\boxed{0}$	$-\frac{\left(1-\frac{\gamma_a}{\lambda_a}\right)(1-\pi_{as}-\pi_{bs})}{1+\mu_a-\pi_{bp}}$
	EB	(3)	$-\frac{1}{\lambda_a}\cdot\frac{\frac{\gamma_b}{\lambda_b}(1-\pi_{as}-\pi_{bs})}{\left(1-\frac{\gamma_a}{\lambda_a}\right)(\mu_b+\pi_{bp})+\frac{\gamma_b}{\lambda_b}(1+\mu_a-\pi_{bp})}$	$\frac{1}{\lambda_b}\cdot\frac{\left(1-\frac{\gamma_a}{\lambda_a}\right)(1-\pi_{as}-\pi_{bs})}{\left(1-\frac{\gamma_a}{\lambda_a}\right)(\mu_b+\pi_{bp})+\frac{\gamma_b}{\lambda_b}(1+\mu_a-\pi_{bp})}$	$\boxed{0}$
IB	IB	(4)	$\boxed{0}$	$\boxed{0}$	$-\frac{1-\pi_{as}-\pi_{bs}}{1-\pi_{ap}-\pi_{bp}}$
	EB	(5)	$\boxed{0}$	$\frac{1}{\lambda_b}\cdot\frac{1-\pi_{as}-\pi_{bs}}{\mu_b+\pi_{bp}+\frac{\gamma_b}{\lambda_b}(1-\pi_{ap}-\pi_{bp})}$	$\boxed{0}$
EB	EB	(6)	$-\frac{1-\pi_{as}-\pi_{bs}}{\lambda_a(\mu_a+\pi_{ap})+m\lambda_b(\mu_b+\pi_{bp})+(\gamma_a+m\gamma_b)(1-\pi_{ap}-\pi_{bp})}$	$-m\frac{Y_a}{L_s}$	$\boxed{0}$

Notes.—See bottom of Table II, p. 19.

ment if $\pi_{as} + \pi_{bs} = 1$ and actually a favourable movement if $\pi_{as} + \pi_{bs} > 1$. Clearly the size of $\pi_{as} + \pi_{bs}$ is of crucial importance.

A little reflection will show the reasonableness of the abovementioned conclusions. We are assuming that the transfer L_s causes a primary decrease in domestic expenditure in country A of L_s and a primary increase in domestic expenditure of country B also of L_s. $(1 - \pi_{as})L_s$ therefore represents the direct reduction in country A's demand for country A's goods and $\pi_{bs}L_s$ the direct increase in country B's demand for country A's goods, *i.e.*, a total direct reduction in demand for country A's goods of $(1 - \pi_{as} - \pi_{bs})L_s$. Similarly, there will be a total direct increase in the demand for country B's goods of $(1 - \pi_{as} - \pi_{bs})L_s$. And there will be a direct decrease in country A's imports of $\pi_{as}L_s$ and increase in country B's imports of $\pi_{bs}L_s$, *i.e.*, a direct improvement in country A's balance of trade of $(\pi_{as} + \pi_{bs})L_s$. If, therefore, $\pi_{as} + \pi_{bs} = 1$, there will be an immediate change in the balance of trade equal to L_s and no net primary change in the total demand for country A's goods or for country B's goods; and there will thus be no further repercussions on national income. And if $\pi_{as} + \pi_{bs}$ were actually > 1, there would be direct improvement in the balance of payments of A greater than L_s and there would actually be a direct net increase in the total demand for country A's goods and a decrease in the total demand for country B's goods, so that there would be a resulting inflation in country A's income and deflation in country B's income. And vice versa in the more normal case in which $\pi_{as} + \pi_{bs} < 1$.

VIII. Conclusion. Comparison with Professor Machlup's "International Trade and the National Income Multiplier"

I have to confess that I had worked out my formulæ before I read Professor Machlup's admirable study on this same subject; and in many respects I find that I have merely repeated his earlier work. I have nevertheless considered it worth while publishing my results for a number of reasons.

First, Professor Machlup does not make room for State revenue and expenditure in his analysis, and he assumes away all secondary effects of changes in national income upon investment. I do not make such severely simplifying assumptions. But this difference is purely formal. If Professor Machlup's factor s is defined in the same way as my factor λ, this difference disappears.

But, secondly, there is a more important difference between his marginal propensity to import (m) and my marginal propensity to import (π). He relates the marginal propensity to import to the national income, whereas I relate it to what I have called domestic expenditure. He says that of any unit increase in the national income a proportion, s, will be saved, a proportion, c, will be spent on home-produced goods and services and a proportion, m, will be spent on imported goods, where $s + c + m = 1$. I say that a unit increase in the national income will, as to a proportion λ, not lead to any increase in domestic expenditure whether for public or private consumption or investment, and that of the increased expenditure $(1 - \lambda)$ a proportion $(1 - \pi)$ will be spent on home-produced goods and the remainder π on imports. Thus, subject to the difference between s and λ to which reference has been made in the preceding paragraph, Professor Machlup's $s = \lambda$, $c = (1 - \lambda)(1 - \pi)$ and $m = (1 - \lambda)\pi$.

I claim an advantage for my notation. Professor Machlup's notation suggests that a person who has more income decides whether to spend it on savings, home products or imports much as he might decide whether to spend it on apples, oranges or nuts. I divide the decision, I believe more realistically, into two parts. There is first the set of factors which determines whether an increase in the national income shall lead to an increased expenditure on goods and services or not. This decision depends upon matters such as the rate of direct and indirect taxes, State policy as regards the Budget surplus or deficit, rates of unemployment benefit and the sensitiveness of the demand for capital goods to an increased demand for final products, as well as upon those factors such as the rate of interest and the distribution of income which determine private savings. But when this decision has been made there is a second question whether the extra goods which are purchased for public or private consumption or investment should be purchased abroad or at home; and here a quite different set of factors is at work, namely, whether home goods or foreign goods are " inferior " or " superior," whether they are complements or substitutes, whether the price relationship is favourable to imports or not, and what commercial policy is adopted. To relate imports to the total domestic expenditure and total domestic expenditure to the national income brings out this distinction.

A third difference is to be found in the fact that I have tried to discuss the " multiplier " problems of the total balance of payments and not only of the balance of trade. By allowing for

"induced" foreign lending (in my terminology) as well as for "induced" imports, I have tried to give a more extensive scope to the "multiplier" formulæ. I have allowed everywhere as much for the effects of income changes on foreign lending as for their effects on trade. And this, as will be seen from the relevant equations, makes a substantial difference to the results. For whereas a unit of "induced" foreign lending has the same immediate effect upon the balance of payments as a unit of "induced" imports, the ultimate effect is quite different because they have quite different "multiplier" effects within the country receiving payment and lead, therefore, to quite different foreign repercussions so far as the paying country is concerned.

There remains the fourth and most substantial difference between Professor Machlup's treatment and my treatment of these problems, namely, that Professor Machlup, like other authors on this subject, deals only with what I have called Neutral Economies. I have dealt also, wherever relevant, with the difference made to the formulæ by assuming Internally or Externally Balanced Economies in either or both of the countries concerned. Indeed, the main point of the particular examples examined in Section VII is to underline the importance of these alternatives. The detailed application is bound to appear somewhat involved; but the guiding principle is clear. Something happens in A (a depression or a shift of demand) to cause a reduction in the demand for B's products. How will B react? Will she let her national income decline until a new equilibrium is reached with a lower level of employment but a somewhat reduced adverse balance of payment? Or will she reflate her national income, thereby exercising an inflationary pressure on A and exacerbating the balance of payment difficulty? Or will she take positive measures to carry her internal deflation to the point of removing entirely the strain on her balance of payments, thereby exercising a deflationary pressure on A? The multiplier technique is applicable in all three cases, though the results are very different. For each practical problem we must be careful to select the most appropriate assumption.

J. E. MEADE

London School of Economics.

MORALE, MILITARY AND INDUSTRIAL

I

1. MR. HERBERT MORRISON has stressed the need for what the army calls "man management." "It is quite wrong," he said,[1] "to think that the problems of twentieth-century industry mainly revolve round profits, or supply of fuels and materials, or mechanisation. The number one problem of industry is how to encourage and assist human beings engaged in industry to give all they are ready and eager to give if they are righly led and rightly inspired. The proper study of management is man." In an earlier address [2] he said: "Lord Montgomery gave more and more of his time as the war went on to human relations, and depended more and more on his staff to carry out tasks which used to be regarded as the business of the old style commander-in-chief. How far has industry got in swinging over from the conception of management as a financial and physical function to the conception of management as essentially leadership of men and women? I wish I could feel that we are going into this battle of the balance of payments as well trained and with as high a morale as we went across to Normandy." Such observations suggest that it would be useful to set down one man's impression [3] of some of the influences that made for or against willing work in the war-time army; and to suggest some applications to work in civil life.

2. Such an enquiry offers the interest of the comparative method, because in the war-time army men were at work without two of the usual spurs to effort: there was little or no wage-incentive, and there was no fear of the sack. It may be said

[1] In an address at Birmingham, reported in *The Times* of March 15, 1948.

[2] Also at Birmingham, reported in *The Times* of October 14, 1947.

[3] "Whenever he (the economist) occupies himself largely with conditions and motives, the manifestations of which are not reducible to any definite standard, he must forgo nearly all aid and support from the observations and the thoughts of others at home and abroad, in this and earlier generations; he must depend mainly on his own instincts and conjectures; he must speak with all the diffidence that belongs to an individual judgment." (Marshall, *Principles*, Appx. C, § 6.) The present paper is based only on the experience of one officer, with one kind of unit, and is therefore both restricted in its field of view, and subject to the prejudices of the observer. But friends of wider experience, military or industrial or both, have encouraged him to believe that his observations are fairly representative.

broadly that in war-time a soldier could earn more by working harder only if his harder work gained him promotion or enabled him to qualify as a tradesman. Both these steps brought him more advantages and disadvantages than a rise in pay alone, and neither provided any automatic connection between effort and earnings. In war-time, again, an unsatisfactory soldier was not dismissed the service. It is doubtful how far the absence of such a sanction was made good by the disciplinary powers given by military law. Certainly the presence of rules and punishments, even in the background, must have helped to make men feel that this was a place where you had to do as you were told. On the other hand, the legal form of disciplinary procedure meant that it could be directed only against specific acts; lack of zeal could not be made the subject of a charge; and though the thought of orderly room might enforce a direct order, it could hardly have made the difference, day in and day out, between good hard work and mere getting by.—If a civilian employer could not use any method of payment by results, or ever sack an unsatisfactory workman, what sort of output could he hope to get? A study of the motives which played upon the daily work of the army should help to answer this question, and may confirm the effectiveness of motives whose working it is not easy to be sure of when more evident sanctions are present.

3. The question about the civilian employer suggests that our enquiry may also have a topical interest, because the conditions supposed are not so far removed from some around us to-day. When tax falls fairly heavily on marginal earnings, and rationing prevents wage-earners from buying more of the things they want most, then payment by results must lose much of its power, and a general rise in rates may even cause the total of work done to fall. At the same time, at least so long as inflationary pressure accompanies full employment, the sanction of dismissal counts for little, except with those against whom it would never be used.

4. But it may be objected that the circumstances of an army at war are so different from those of peace-time work in civil life that there is really no common ground. The men are most of them conscripted, separated from their homes, paid a low cash wage, and not so much working as training to fight and then fighting. On the other hand, they are under military law, dressed in uniform, capable of being animated by *esprit de corps*, or patriotism, or fighting spirit. Neither the task, nor the motives bearing upon it, nor the way of life in which it is set, seems to have any close counterpart in civil life.

5. We can, however, take that part of a soldier's life in which he is not in battle, but occupied, together with training, in work not unlike some kinds of work in industry. The gunner, for example, has his equipment to clean, lubricate and adjust; he may have field-works, sometimes extensive, to carry out—gun pits to dig, drain, revet, fit out and camouflage; he has ammunition to stack, clean and sort. The tradesmen for the most part works at his trade, which may be a recognised trade in industry. The driver services and drives his vehicle. All arms have some equipment to maintain, and their own clothing and quarters or bivouacs to keep in order: work which will be regarded as trivial only by those who have never had to do it for themselves. Differences in the willingness with which such jobs as these were undertaken caused striking differences in the showing made by different units. They are jobs of much the same kind as are always being done in civil life. Most soldiers spent more days of their service on them than in battle. They went on day by day in the humdrum months and the long dragging years, after the tingle of novelty had died down, and the first flush of patriotism had ebbed. It does seem possible, therefore, to find much common ground between work in the army and in civil life, provided we take the soldier in denims rather than in battledress, and so keep to those parts of army life which are least affected by war-like excitement and the "servitude et grandeur militaires."

6. There is bound to be one difference, however, in men's attitude towards their work in war and peace, that must enter into all comparisons. The war is not expected to go on for ever. Men will put up "for the duration" with conditions they would not tolerate indefinitely, and "getting shut of this lot" is an end in itself. As at a fire, men will waive their own claims and accept a subordination they would otherwise resent, for the sake of organised action to meet the emergency. The great war aim was "the right to go home": in effect, this was work that a man would throw himself into for the sake of getting out of it for ever as soon as possible. For this reason there must be a doubt how far the motives for work which will be taken up here would have carried men, if they had not had it in their minds all the time that some day it would all be over. On the other hand, the conditions in which they were working were in many respects, and especially through separation from home, more frustrating than those of civil life, and the special incentive may have done no more than offset the special hardships. We cannot say; but what is left in doubt is after all not whether certain motives to work did in fact

operate, but how effective they would have been by themselves, and we are concerned only with the former question. We shall be looking, moreover, not at work in special undertakings and campaigns mounted for striking objectives, where the thought of getting the war over and done with would operate forcefully, but only at daily and routine work.

7. It may be suggested that in patriotism there was another special influence. Certainly it could not be left out of any account of why men were willing to go to war at all. Like the thought that the war would not go on for ever, too, it may at all times have been an influence which made some men willing to waive their personal claims as they would not be in the ordinary business of life. But, in everyday work at least, it seems to have operated more as an underlying and unconscious acceptance of the rightness of going on, than as an active stimulus to do particular jobs. With the Englishman in arms, it is true, one might easily underestimate its power: his hard-bitten cynicism, his lean and hang-dog look, his savage contempt for the high-falutin', forbade the facile expression of patriotism, and sometimes suggested a disillusionment ripe for revolt; but an ally who was encouraged by this to criticise England would soon discover his mistake. That the sense most soldiers had of belonging to their country was so deep-laid and unquestioned as hardly to enter into their awareness, but left their minds free to keep their grievances uppermost, was perhaps the measure of its strength. But, for the same reason, it seemed to be, like good health, a general and permissive condition for work, rather than a motive. Without it, perhaps, work could not have gone on at all; but granted it was there, how much work was done day by day depended on more immediate influences.

II

8. In studying these influences, we shall take first those which raised the will to work. Of these, some acted on the soldier as an individual, apart from his membership of a unit and his relations with his fellows. The strength of the " instinct of craftsmanship " sometimes came out remarkably. The care which a despatch rider would lavish on his motor-bicycle, or a limber gunner on his gun; an artificer's insistence on putting a finish on his work; the ingenuity of men put on to construct some " mock-up " or prototype: recollection provided many instances of the pleasure which men can find in work when they see its outcome and that

outcome can be identified as theirs. One purpose of "putting the men in the picture" was to give a visible form to the outcome of their work: to let them see what it was they were doing. Closely allied with pride in the product, was a man's pride in his skill, and sense of the status which skill confers. The artificer's motto "Ubendum, wemendum" showed his sense of being called in, like the doctor, when troubles were too great for ordinary mortals to cope with themselves. A skilled man's touchiness about being expected to do work, even incidentally, which an unskilled man could do, may have been a recollection of trade-union practice, or have expressed his sense of the superior status of his own skill; perhaps it was both. Those who had no tradesman's skill might show the same pride in their own attainments by a sudden and unforeseen outburst of didactic fury when they were put on to instruct novices. Some hardened sinner, well-known to the orderly room, detailed to take a group of the uninitiated through the parts of the Bren gun, would fix them with his eye, and, between amazement at their ignorance and delight in his own mastery, keep them at their stumbling repetitions, until higher and more merciful authority released them. The passion to instruct (though not the art of instructing effectively) seemed fundamental in human nature.

9. Pride, and hence satisfaction, in one's work was fostered, even where no special skill was really needed, whenever a man had a recognised function in the community, and especially if that function was signalised by a title. A man might work hard at a distasteful task, if formally appointed to the office and title of sanitary orderly; the status of this function being marked by some minor exemptions from general duties. Perhaps the naming of the function seemed both to show that it was useful to the community, and to imply the presence of a "mystery." Such an attitude was strengthened if an inspecting officer said a word to the man on the responsibility of his work, and how the health of his comrades depended on him. In the same way, much enterprise might be shown by a junior N.C.O. appointed Malaria Control Officer for his sub-unit.

10. So far we have been considering influences on the soldier as an individual, but the last paragraph touched on his relations with his fellows, and we shall now consider those influences which seemed to work through the community. Of these none appeared more clearly than loyalty to a group. Ideally, this group would be small, not more than twelve in number. Its members were doing the same work together: for example, they might provide

the team responsible for maintaining and manning one gun, which was their totem. They spoke of the group as "the boys." They had settled down together and got used to one another. They would back one another up and help one another out. They showed great tolerance to one another for any failings that did not mean disloyalty; and a slow-witted man who could have been teased would, in fact, be protected, and found the kind of job he could do. A good N.C.O., in command of this detachment, and living and working with them, was the father of the family; he was the arbiter of their differences, and he gave a lead, but he did not have to give many orders. Working together, they would share out the tasks, and improvise to meet contingencies, without having to be told, and they displayed a cheerful, sociable, seemingly spontaneous activity. The importance of such a group to its members seemed to be sharply increased when the unit went overseas and they were cut off from ties of home. To get back to it, men who had gone to hospital, and saw relegation to a reinforcement unit ahead of them, might break out, sometimes before they were recovered, and thumb their way up the line again. To move men from one such group to another was a surgical operation, which the most bureaucratically minded superior soon found he had to undertake with care. Where loyalty to a small group was strong, it seemed to leave little room for feelings of attachment to larger bodies. The units, and even the subunits, which made up the formal organisation, were not necessarily social units in the sense that there was much feeling of kinship among their members. Men who would never rob a comrade would think nothing of stealing from another unit. Loyalty to one small group, indeed, sometimes seemed correlative to antagonism to or contempt for others. The detachment serving one gun would have its jokes about something that had happened in the next pit; but this was as nothing to the incompetence or neglect credibly reported of the other half of the same battery; while no scandal was too shocking to be believed of other batteries in the same regiment. Such phantasies indicated the pride the group took in its own skill and zeal.

11. In such conditions, competition between groups was a powerful motive. But it seemed that such competition was a by-product of group loyalties, rather than something attractive enough in itself to make men join teams for the sake of taking part in it. The success, that is to say, of any plan to use "socialist competition" as an incentive to work appeared likely to depend on whether the teams intended to compete were already live

groups receiving the active loyalty of their members, or only operational sub-units between which it was convenient to make comparisons; and on whether these teams were in contact with each other and therefore opponents in flesh and blood, or only the unseen sources of scores reported on paper.

12. A great economy of effort could be achieved if the operational or administrative sub-unit could be made to coincide with the group. In effect, this meant giving the group a job and leaving them to get on with it. An example may show what was at stake. At a gun position, every place in action had to be covered by a man at readiness throughout the twenty-four hours: so many men at each gun, so many in the command post and at fire control instruments. One way of making sure that every place was always covered while at the same time each man got his fair share of time off duty, was to work out a "manning detail" showing by name the man who was to fill each place for the period covered. Another way was to constitute a group out of which each gun team and the like was to be provided, to keep this group intact, and to leave the N.C.O. who commanded it to work out his own roster. The first method could take account of every casualty which was known at the time of the detail being made out; it left no doubt about who was responsible for filling a given post; carefully used, it could equalise the shares of duty and rest throughout the Troop, and make the most economical use of man-power. But it did not work if some actual casualty was unknown or overlooked when the detail was made out, still less could it take care of those occurring afterwards. The second method would work only if the Troop Commander trusted his N.C.O.'s to maintain full teams at readiness and deal fairly with their men, and if the men were willing to accept some inequality from time to time in the incidence of duty and rest between different groups. But if these conditions were fulfilled, this method did avoid the difficulties to which the first method was exposed, because it devolved the executive function to the point where the problem arose. For this reason, too, it gave men more interest and security. Whether they were on or off, was something within their reach, and open to argument if they had a grouse about it; not a ukase from above. The N.C.O. in command of a group could do what was needed as the need arose, and could not be frustrated by lack of orders, or wrong orders, due to higher authority not being in touch, as he was, with the problem on the spot: a frustration which made for a spirit of "I couldn't care less." Members of the group, having a problem in their own

hands, might make a good suggestion which would not have been heard of otherwise, or offer to do something extra which they would have resented being ordered to do. They would make arrangements among themselves to meet minor contingencies—for example, to relieve a man who was feeling poorly: "I'll stand in for him, Sarge."

13. The influence of the group depended greatly on its leader. This working of leadership appeared as a general principle of social interaction, and was by no means a matter of strong personality alone, but came out also when the man at the head of the group was weak. In either case a process of imitation or infection set in, and the quality of the whole group approximated itself to that of its head. This was recognised in the army by the sayings "Fish goes bad from the head" and "There are no bad soldiers, only bad officers." Sacking the major because the cook-house was dirty did not merely serve "pour encourager les autres," but would often be getting to the real root of the trouble. Where the head combined high personal quality with the power of command, that is, the gift of making others accept his orders without question and want what he wanted, then the influence of leadership was at its highest. But even where that influence was weaker, there still seemed to be in the group an unconscious appreciation of what its leader himself really wanted, and this might be understood better than he understood it himself: so that a mild and quiet-spoken man who had high standards for himself might be surprised to find himself regarded as exacting, while a fire-eater who didn't really bother could but come and go as the whirlwind.

14. What has been said about the principle of unconscious imitation needs qualification in two ways. First, it seemed that a well-knit group could "carry" a weak leader, at least at the lower levels of command, and provided that the group liked him as a man. Once a group had attracted the loyalty of its members, and they had become used to working together in certain ways, it acquired a gyroscopic stability, and could carry on without progressive loss of efficiency, though no doubt it was not so efficient as it would have been if better led. A second qualification lies in the different influence of personal and impersonal authority. In one Troop it was noticed that when the daily orders on the board included an order requiring some immediate action by the men—a change, perhaps, in the way of cleaning web equipment—they did take action, albeit with curses, if the commander from whom the order came down was known to them personally, but if he was not, they did nothing about it until it was repeated to them

by their own officer. Commanders differed widely in their gift of the personal touch, of making their personalities felt by those far removed from them down the line of command. The more clearly an officer was seen and known as a man, the greater his power of command.

15. So much for the spirit of the small group. A more general influence was the state of discipline. Lord Wavell has defined discipline as "teaching which makes a man do something which he would not, unless he had learnt that it was the right, the proper, and the expedient thing to do. At its best, it is instilled and maintained by pride in oneself, in one's unit, in one's profession; only at its worst by a fear of punishment." [1] It will be noted that this definition makes discipline a matter of teaching and not of authority and force; but it is "teaching which makes a man do something," that is, it is a pattern of behaviour which has been instilled into him so that he no longer thinks of acting otherwise. Such teaching was given through drill and weapon training, but perhaps more powerfully, if indirectly, through the very pattern of the day in a unit where for everyone orders were orders, and things were not done "rather more or less." There seemed to be three elements in it at its best: the training itself, the response of the man to it, and the *esprit de corps*. The training gave reasons for what was done, but was also a drilling, in which repetition moulded habit. The man, however, was not an automaton merely: what was taught appealed to his commonsense and self-respect, and he accepted it as "the right thing to do." In a unit which prided itself on its standards, and the outward and visible signs of them, personal acceptance of teaching was supported by the strong force of social conformity: to do this was "the thing" which all the right sort did, to do otherwise marked you out as a fool or an outsider. "Spit and polish," in reason, served a double purpose here, as a practical exercise in the difficult art of getting things exactly right, and as showing in smartness of turnout a unit's pride in itself. Discipline, in this sense, included doing what you were told, but was a more complex product, and fostered a more resilient temper, than "the ingrained habit of instant and unquestioning obedience to orders." It was not incompatible with, indeed strengthened, initiative. It meant that men, whether under the eye of authority or not, would feel that a certain standard was expected of them, indeed that they expected

[1] In "The Soldier as Individual," reprinted in *The Good Soldier* (Macmillan, 1948), p. 45.

it of themselves: that things should be seen to, and kept in order, that jobs should be done thoroughly and finished off smartly. Among the factors making for willing work, this must stand high. It is, indeed, more than a factor, it is a type of man and a way of life. The full achievement of it can only be the product of good material, skilful handling, and time.

16. Another general influence was the state of confidence. The trust men had in their leaders; their consciousness of the support of folk at home; their knowledge of the quality of their equipment, and of the strength of supporting arms; the success of recent operations locally; news of the progress of the war elsewhere: these things affected men's spirits and so their appetite for work. This was still true, despite a keen nose for propaganda, and violent allergy to the pep talk. Perhaps these sceptic qualities served to prevent too much volatility, and checked the fall no less than the rise. But some differences in confidence there were from time to time, and however general and diffuse the influence of the higher state may have been, there could be no doubt of the inhibiting effect of the lower. "To lose heart," after all, is almost synonymous for "to do less."

III

17. After the influences which made for willing work, we may take some which pulled the other way. Two reasons for withholding effort stood out as depending on the relation in which a man felt he stood to those in authority. Of these the first seemed to be rooted in a sense of insecurity. A man would seem to suspect that doing more than he was obliged to would be a sign of weakness, a concession which would quickly be followed by demands for more. There was no conscious antagonism to authority here, or concerted resistance; but a man seemed to take it for granted that to keep his own end up he must hold back, and avoid giving what was hoped for from him. Those who did work keenly would be looked on not so much as blacklegs as dupes—"You'll learn, chum." The underlying process may have been one of reaction to a sense of helplessness, a fear of being pushed around by a powerful and inconsiderate system. Feeling liable to be got at, a man would dig his toes in: "You may push me, you may shove, but I'm danged if I'll be druv." If he had felt he had some voice in his own destinies, or if he were assured of being treated justly and having a fair hearing for his complaints, then perhaps he would not have felt the need to talk; but as it

was, his feeling seemed to be, " If you claim the right to order me about, very well, if something needs doing you can give me an order." That reaction appeared explicitly in a man who felt he had been interfered with by the orders of an officious superior in a job which he should have been left to get on with in his own way. Less consciously, it may have underlain the passivity and unwillingness of those who felt insecure before an authority which was liable to move them about arbitrarily. One symptom of this insecurity was perhaps the morbid touchiness which some men showed about anything, however trivial, which might savour of discrimination or inequality. This might be accounted for simply by jealousy; but there seemed also to be this train of thought, that if I accept another man's being treated differently from me, even if my own interests don't directly suffer by it, I have sold the pass, I have admitted that men can be treated separately and therefore arbitrarily and not solely by a common rule. When the time came for release, the stress which men laid on all those in the same age and service group being treated alike was plain to see. So much was this so, indeed, that to one observer at least it seemed that if men had been given the choice of two schemes, in the first of which they themselves would be released in March while others of the same group would get out in February, while in the second all in the group would get out at the same time, but not till April, many of them would have chosen the second. The reasoning underlying this would have been, if you once admit that one man may be treated differently from another in the like case, what security has any one man got that he will ever be released at all? In a different way, it may have been the same reaction to insecurity that was revealed when men expressed a preference for a unit with strict discipline, because " you knew where you were with them." If you came on parade improperly dressed, you would certainly be put on a charge, but no less certainly you could count on your pass when your turn came round in the leave roster. In the same way, a man wishing to pay tribute to a good officer might take it as the first thing to be said, that he was fair: justice being looked for above all else in the superior, as the guarantee of security to the subordinate.

18. The second reason for withholding effort was closely connected, and seemed to lie in a sense of cleavage between " us " and " them." Those who felt in this way did not for one moment regard themselves as partners in the enterprise of a nation, at war or at peace. To say that they had the vote, and the government had been returned by the voters, was merely ludicrous to them,

for whom it was clear that the country was run solely by people they did not specify but found it self-evident to call " they." This attitude seemed to correspond to an underlying sense of personal weakness rather than to any social creed. " They " were not the bosses, the idle rich or the brass hats; if any identification were needed, they were " the big boys " : the powerful ones, the ones on the inside, the big shots with education, who have the know-how and run the country. The attitude towards " them " was ambivalent accordingly. On the one hand, " they " had the knowledge and the power, and therefore the responsibility : it was their job to see that everything went well, and their resources were unlimited. But, on the other hand, " they " might be incompetent, or just not care, and you were a pawn in their hands. The attitude was that of a child towards a parent who was all-powerful and yet might fearfully disappoint. It corresponded to this, that a man who felt in this way was genuinely unable to see why he himself should be called upon for any sacrifice. Since society was controlled by others without regard to him and his feelings, what duties could he owe to it? And since " they " were all-powerful, why could they not manage things without dragging him into it? Thus it was that some conscripts, though they did not seem to have any doubt that Hitler had to be defeated, and themselves might come from heavily bombed districts, still seemed to remain genuinely shocked and indignant that they should have been called up, and actually taken away from their homes and jobs. The implication was that " they " should have been able to stop Hitler without this arbitrary interference with a man's private life and earnings. " Why pick on me? " The question " If you and I oughtn't to be doing this job, who should be? " was likely to be met with the answer that it all need never have happened if " they " had wanted to stop it. A man who felt like this was evidently not a member of a team. He was living in a world over which he had no control nor share in control. Those who did control it could keep it in order without calling on him, if only they were not incompetent or indifferent. As it was, he had been carried off by the press gang, to help " them " do what was their job and not his. Let them get on with it. The attitude described here in its chemically pure form was scarcely found in practice except in combination with other attitudes, by which a man was drawn towards membership of the community in which he now found himself; but it did seem to be a frequent source of apparent irresponsibility, of failure to recognise the claim of the job.

IV

19. The object of this study has been, by examining some of the ways in which men worked when they did not have wage-incentives or the sanction of dismissal, to reveal the operation of factors whose effects, if any, it would otherwise be hard to disentangle. So far as the action of any such factors has been brought out, some reason has been established for believing that the policy which makes the best of them is itself really effective, even when it cannot be proved so by separate measurement of its results.

20. One who accepts the findings of this study as somewhere near the mark will therefore approach the problem of willingness to work in civil life with certain expectations, though also with awareness of the difference in the settings. The most general of these expectations is that the non-monetary motives for working are in fact powerful. No one who has experienced the way in which men could and often did work in the army can regard it as hard-headed and realistic to say, that when you have cut out transient emotions and high-falutin' principles, all that really matters to the worker is his wage-packet. Of course this does matter, but it seems to be only part of what matters. A job cannot be regarded only as so much work to be done for so much money, but must be seen and handled as a social situation in which there are many relations between the worker, his mates, his supervisors, his home and his pay. Influences other than the wage-incentive seem likely to be not merely propitious, as establishing the sort of climate in which the wage-incentive can take hold, but themselves as strong as, or sometimes even stronger than, the wage. Nor will it seem likely that the effectiveness of a wage-incentive system can be considered apart from the social setting into which it is to be introduced, and how the way in which it is introduced affects that setting.

21. Another inference is that human relations are vital to efficiency, and have a first claim on the attention of management. On this view, every one who is in charge of any group of workers must be judged by his ability to handle men as well as by his technical attainments. Such ability cannot be thought of as innate, or to be picked up as one goes along, but needs training specially planned and provided to develop it. One of the first jobs of top management appears as keeping personal touch with "all ranks under command"; and this is no less important than financial and technical administration—indeed it is a special

function of the man at the top, as distinct from his staff. In the same way, the state of discipline of a business seems to call for no less planned action than its equipment and lay-out: what measures shall be taken for the induction and training of entrants, for fostering pride in the firm and the job, and for instilling the habit of giving and expecting nothing but the best?

22. To these general reflections we may add some illustrative detail. (i) A man can hardly take a pride in his handiwork if his job gives him little scope for skill, other than repetitive dexterity; or if it is only one of a sequence of jobs on the same material, so that he cannot point to any product as his own. But these obstacles may be overcome to the extent that one can display the margin of skill left in the job—for instance, by records of stoppages, or waste, or rejects—and make it clear that such skill is appreciated. Again, to provide information about what products are being made and what output is being achieved gives everyone concerned the power to point to something as the thing he makes: this seems to be one of the purposes of "putting them in the picture." However mechanised and repetitive the job one worker does, the product of the whole team of workers is still bound to be a craft product, and a worker can feel himself a craftsman to the extent that he identifies himself with the team; so that all measures which foster a sense of his being a necessary member of the team, also give him more scope to feel pride of craftsmanship. (ii) "Putting them in the picture" seems likely to do good also on other grounds. By showing the concern of those at the top to let everyone know what is going on, and especially by stating the reasons for orders or changes, it shows that the managers are thinking of the worker as a human being and not as a hand paid to do a task whose purpose is not his concern. It therefore seems likely to help to reduce that anxiety about being treated inconsiderately and impersonally, which it was suggested caused insecurity and the holding back of effort. In this respect, giving information may be worth while even though when the "gen" is there not many workers take much notice of it. By helping workers to feel that they are "in the show," it may also help to break down the assumption that it is "they" not "we" who are responsible for what is being done. (iii) Pride in status is supported in various ways. There seems to be virtue even in a name: the change from "rat catcher" to "rodent operator," though barbarous in one way, may mark a sense of the importance of the post, and so the heightened responsibility of the man who holds it. The professional—that is, the interested and

responsible—attitude towards a job, may grow as that job becomes recognised and named as a distinct function. The development of instructors in Training Within Industry may help in this way. Where status cannot be given to jobs, it may attach to experience and length of service, and the publishing of pictures and biographies of workers seems useful here.

23. (iv) The feelings which centre upon "pride of unit" and smart turnout in the army may have some counterpart in civil life, in satisfaction derived from the reputation of a firm and the cleanliness and brightness of its grounds and buildings. It seems likely that attention to the latter, as the outward and visible sign that "we do a good job here," will increase the satisfaction which the worker finds in his job, even when it makes no difference to his actual working conditions. (v) Some branches of manufacture may offer a choice between organising departments according to process or according to product: each process may be concentrated into one department, or the department may be set up to contain most of the processes which go to the making of a given assembly or product, even though this means that the same process will now be carried on separately in several departments. The experience reported here gives some reasons for expecting the latter to be the method which will suit human nature best; though the technical economies of concentrating processes may often be too great to allow of it. Under it, the end product is within sight of those engaged on particular processes, who thus have more chance to feel that they are really making something, instead of only going through certain motions. Those engaged in the various jobs can see how these fit—or sometimes fail to fit—into one another, and may develop a team spirit. The frustration of being held up by other people's shortcomings is avoided so far as the supplies of components or the links in a chain of processes are brought together for one team to maintain, making its own internal adjustments as necessary. The departmental leadership is given more executive freedom and less chance to put the blame on someone else. (vi) The great value which men attach to fairness in those over them suggests the great importance of the judicial frame of mind at all levels of management, in all issues which arouse men's feelings of equity. No one wants to be unjust, and what comes up for comment here is not the virtue of justice, but the way in which the evident intention to rate justice very high may affect men's will to work. That intention is shown by willingness to take much trouble over individual cases, even where the amount at stake is small; and by giving

special weight to equity, where that conflicts with other grounds of an executive decision. Such scrupulousness may be expected to reduce men's insecurity, and so release their energies from self-defence. Recent suggestions for explicitly recognising the judicial function of management, and providing a distinct body to exercise it or advise on its exercise, are on this account to be welcomed.

24. A final reflection must be stated briefly. Experience of how much enjoyment and satisfaction men can find in their working life when their "real income," or "standard of living," as we economists would measure it, is very low, suggests a doubt whether we are not missing a good half of the target altogether, when we take the end of policy to be the maximising of a welfare which begins only when work stops.

E. H. PHELPS BROWN

The London School of Economics.

THE PROPORTIONAL PERSONAL-INCOME TAX AS AN INSTRUMENT OF INCOME CREATION

MANY economists believe that deficit spending is a more powerful means of income creation than is taxation in general.[1] Comparison between these two methods, each of which includes a wide variety of possibilities, is not conclusive. There are at least several situations in which the opposite conclusion is correct. This paper establishes the income-creating power of the proportional personal-income tax and indicates when this tax is a more powerful force than deficit spending. The problem here considered is how to fill a constant deflationary gap and to maintain a satisfactory level in income for the long run. The solution presented in this paper is that deficit spending minimises the government outlay for the short run, and that the proportional personal-income tax may do so in the long run.

The development of the argument falls into three stages. First, the income-creating power of the proportional personal-income tax must be established for all degrees of elasticity in the demand and supply curves of saving and investment in the long run. It will be demonstrated that a tax outlay which may vary depending upon the shapes of these curves, but which no matter what their shape remains fixed, can close the given deflationary gap. Second, the government outlay which is necessary under continuous deficit spending is set forth. In the short run the current government outlay will be seen to equal the current deficit which closes the gap, because the interest charge on the

[1] G. von Haberler, "Some Observations on the Murray Full Employment Bill," *Review of Economic Statistics*, August 1945, pp. 106–9.

Alvin H. Hansen, *Fiscal Policy and Business Cycles*, New York : Norton, 1941, pp. 179, 182–3. *Economic Policy for Full Employment*, New York : McGraw-Hill, 1947, pp. 188, 282. "Three Methods of Expansion through Fiscal Policy," *American Economic Review*, vol. xxxv, no. 3, June 1945.

Seymour E. Harris, *National Debt and the New Economics*, New York : McGraw-Hill, 1947, pp. 100, 101.

Richard A. Musgrave, "Fiscal Policy, Stability, and Full Employment," *Public Finance and Full Employment*, Washington : Board of Governors of the Federal Reserve System, 1945, p. 12.

Paul A. Samuelson, "Simple Mathematics of Income Determination," p. 146, and Robert L. Bishop, "Alternative Expansionist Fiscal Policies, a Diagrammatic Analysis" (pp. 317–40). *Income, Employment and Public Policy*, New York : Norton, 1948.

Paul A. Samuelson, *Economics, an Introductory Analysis*, New York : McGraw-Hill, 1948, p. 443.

All of these authors fail to distinguish adequately between the short-run and the long-run aspects of this problem.

growing debt is a negligible sum. In the long run, however, the mounting interest cost raises the total government outlay continuously. Third, comparison between these methods is possible and will show that deficit spending requires the smaller outlay in the short run and that the proportional income tax may involve the smaller outlay in the long run.

I

To establish the income-creating power of the proportional income tax, it is necessary to measure the deflationary impact of the tax and to show how this reaction is more than offset through the creation of credit. All forms of income creation rest upon the expansion in money. Measurement of the deflationary impact of this tax in relation to its income creation is possible by means of the formulation of the results of the proportional tax in a specific situation. This happens to be so placed that the income-creating power of the tax in all positions of the determinants may be gauged from this one formula.

This unique situation, in which measurement of the income creation of the proportional tax is possible, depends upon several assumptions. (*a*) The short-run deflationary aspects of the tax which disappear in time are offset by temporary deficit spending. That is, the discontinuity between tax receipts and outlay, the uncertainties of the initial impact of the tax and the over-estimation of its depressing effect are counterbalanced at the outset by deficit spending; so that the satisfactory level in income is maintained while the taxing programme is going into operation. Under this assumption no further deflation in addition to the initial gap develops by means of the multiplier. (*b*) All the determinants remain fixed after the initial deflationary gap has been foreseen. That is, the new positions of the consumption function and the schedules in saving and investment remain constant.[1] (*c*) The schedule in the marginal efficiency of investment is assumed to have an elasticity of unity throughout. This makes the formulation relatively simple. (*d*) The supply schedule of saving and investment is assumed to be infinitely elastic over the relevant range. Infinite elasticity in the supply schedule, of course, means that the banking system can expand credit at the

[1] This assumption is necessary methodology because measurement of the impact of the tax would be impossible if the consumption function and the schedule of saving and investment were free to shift on their axes. This does not imply that these schedules remain unchanged in reality, for it is well known that there is a secular rise in consumption and cyclical fluctuations in both consumption and investment. Of course, the theory of deficit spending is based on the same assumption.

equilibrium price net after tax without developing a bottle-neck. These last two assumptions enable us to measure the amount by which the tax reduces investment as well as the increase in credit which flows into the space made available by the decline in individual saving. Deficit spending also rests upon the elasticity of bank credit. (*e*) The collection and expenditure of the tax take place in the same income period. This assumption enables us to include in the formulation the tax outlay together with the decline in the consumption of taxpayers and the reduction in investment. (*f*) There is the final assumption that the economy is sufficiently mobile to adjust to the tax outlay. As will be seen later in this section, the tax outlay must be either consumed or devoted to expanding private investment, depending upon the elasticity of the marginal efficiency of investment, and the factors of production must be free enough to follow this outlay. After all, this is also necessary for deficit spending.[1]

Let us now formulate the income-creating power of the proportional personal-income tax in this unique situation as determined by these assumptions. Let the satisfactory level in income before the appearance of the deflationary gap be Y and the gap be g. Then the level in income would fall to $Y - g$ in the next period if the gap were not closed by a temporary deficit. Will the imposition of the proportional-income tax make the deficit unnecessary? Let the tax rate be t, and so the receipts are tY. This reduces the consumption of taxpayers along the consumption function. Let AP be the average propensity of individuals to consume which is correlated with the income level, Y, and let mp be their marginal propensity.

The question now arises, what is the impact of the proportional tax upon investment? The answer is in two parts. The result of the tax upon the supply price of investors must be calculated, and then the profitable investment estimated. The previous assumptions make the answer possible.

As regards the impact of the tax upon the supply price of investors, investors raise their price sufficiently to cover the tax.[2] Thus they receive the same return net after the tax as before its

[1] The apparent unreality of these last two assumptions is mitigated for the present analysis because this paper stresses the long-run adjustments.

[2] There is no need for investors to invest, and if the expected return does not cover the elements in their supply price they can hoard the funds. The later argument, furthermore, is strengthened by taking the most deflationary impact of the tax. If the argument is correct for this situation, it is even more correct should investors not raise their supply price to cover the tax. *Report of the Committee on National Debt and Taxation*, The Right Hon. Lord Colwyn, chairman. London, 1927, pp. 130–1, 144, 150–1, 158–61, 169.

imposition. Since the supply schedule is infinitely elastic, the proportional tax raises the schedule equally over the relevant range.[1] Let j be the normal-supply price of investors before the tax, and e be the gross return after the tax. It follows that $e = \frac{j}{1-t}$.[2]

By hypothesis the schedule in the marginal efficiency of investment has an elasticity of unity, which means that the multiplication of the supply price and the related investment is always a constant. The rise in the supply price of investors which results from the tax causes an equal and opposite change in investment.[3] Thus investment after the tax is $(1 - t)(Y - APY)$.

It is now possible to list the components of the national income after the tax has been imposed. These items are: the consumption of taxpayers, the profitable investment and the tax outlay, which of course must entirely enter the income stream as does a current deficit.[4]

The expression $tY(AP - mp)$ states the income-creating power of the proportional tax under the given assumptions. When this expression is equivalent to the deflationary gap, the level in

[1] See diagram page 64. The tax raises each supply price the same amount, as is indicated by the dashed line. If MN had a positive slope then the dashed line would have an even steeper slope, and the supply prices would be raised by different amounts.

[2] The gross return equals the normal price plus the product of the tax and the gross return: $e = j + et$.

[3] Before the tax the supply price is j and investment $Y - APY$. After the tax, the former becomes $\frac{j}{1-t}$ so that the latter must change to $(1 - t)(Y - APY)$. Their product is still the same.

[4] There are two ways in which the deflationary gap can appear, as a decline in either consumption or investment. The consumption function or the schedule in the marginal efficiency of investment may drop; we must formulate the income-creating power of the proportional tax for both these possibilities. Let AP be the average propensity of individuals to consume before the appearance of the deflationary gap. When the consumption function shifts down, let the average propensity fall to AP_1. The result of the proportional tax may be written as follows. The consumption of taxpayers is $AP_1Y - mptY$, and investment is $(1 - t)(Y - APY)$. By adding the tax outlay, tY, to these items, we have the result of the tax as $Y + AP_1Y - APY + tY(AP - mp)$. The deflationary gap is the excess of APY over AP_1Y; and when $tY(AP - mp)$ equals this difference the gap has been closed.

When the gap is the result of a fall in the schedule of investment, let g be the decline in investment. Investment before the appearance of the gap is $Y - APY$, and afterwards is $Y - APY - g$. The result of the tax is written as $APY - mptY$, which is the consumption of taxpayers; tY, the tax outlay; and $(1 - t)(Y - APY - g)$. This reduces to $Y + tY(AP - mp) + tg - g$. When the middle two items equal the last one, the deflationary gap has been closed.

Since a comparison of these expressions indicates that the proportional tax is a somewhat less-powerful instrument of income creation when the consumption function declines, than when the investment schedule falls, the argument proceeds in terms of the less powerful expression.

income is satisfactory and the current deficit has been done away with. The question still remains, how was the necessary credit expansion brought about? The answer lies in the difference between the saving of individuals after the payment of the tax and the profitable investment which yields a return high enough to cover the tax. In other words, the tax reduces individual saving more than it does investment. There is room for the profitable expansion of credit at a price which covers the normal return in addition to the tax. If this argument is correct, the resulting credit expansion should equal the above expression for the income creation. Formulation of the difference between the profitable investment and individual saving after the imposition of the tax shows the two to be the same.[1]

Now that the income-creating power of the proportional income tax has been established under the given assumptions, it is possible to broaden the analysis to include all degrees of elasticity in the demand and supply schedules of investment. In doing so, the reasons why the foregoing special case was called unique will become apparent. It is unique in two respects. First, this case serves as a convenient measure of the income-creating power of the tax in all other positions of these schedules; and second, it shows that the tax outlay must be devoted to expanding private investment when the schedule in the marginal efficiency of investment has an elasticity greater than unity. Each respect is important and must be explained separately.

Let us now remove the assumption that the supply schedule of saving has an infinite elasticity over the relevant range. As the schedule becomes less elastic its slope becomes steeper, and a given proportional income tax raises each supply price by a constant multiple, *i.e.*, a different absolute amount. The increase in the supply schedule which the tax brings about causes the new schedule to be more inelastic than the old. Therefore, the more inelastic the supply schedule excluding the tax, the less is the decline in investment which a given tax causes. The income-creating power of the proportional income tax is therefore greater the more inelastic the supply schedule.[2]

[1] The profitable investment after tax is $(1 - t)(Y - APY)$. Individual saving after tax equals available income minus consumption. Available income is $Y - tY$, and consumption after tax is $AP_1Y - mptY$. The credit expansion equals $(1 - t)(Y - APY) - [Y - tY - (AP_1Y - mptY)]$. This reduces to $AP_1Y - APY + tY(AP - mp)$.

[2] See diagram on page 64. As M approaches the X axis, MN still passing through the equilibrium point with the demand schedule, the dotted line falls more rapidly and has a steeper slope than MN. Hence its intersection with the demand schedule lies to the right of its intersection when MN is horizontal.

In other words, the supply schedule gives the prices at which saving is forthcoming and by how much these prices must be increased to cover a given proportional income tax. When these prices are low the tax does not raise them very much. This means that the marginal efficiency of investment need not be raised a great deal to cover the tax. Hence the difference between the saving out of available income as determined by the consumption function and the profitable investment is larger, and the banks expand more credit than when the supply prices are high.

The foregoing analysis of the supply schedule has dealt with all degrees of its elasticity from infinitely elastic to absolute inelasticity. The question at once arises, Can the schedule have a negative slope? The answer is that a negative slope is impossible under assumption *D* in which the banks can create all the necessary credit at the equilibrium interest rate net after tax. This means that if the supply price of individuals should rise with a decrease in available income, bank credit would flow in to fill the gaps between the profitable investment net after tax and available savings. Thus the foregoing analysis covers all possible slopes in the supply curve of savings.

Let us next remove the assumption that the schedule in the marginal efficiency of investment has an elasticity of unity. It may, of course, be more or less elastic. When the schedule has an elasticity less than unity, a given proportional income tax reduces investment less than when its elasticity is unity. The reason for this reaction lies in the concept of inelasticity. It means that for a given reduction in investment the marginal efficiency rises more rapidly when the schedule is inelastic than when it has an elasticity of unity. Hence investment need decline less to bring about the rise in the marginal efficiency of investment which is necessary to cover a given tax, when its elasticity is less than unity than when it is unity.[1]

The conclusion which follows from this analysis is important for income creation. The more inelastic the marginal efficiency of investment, the greater the income creation, other things being equal. The formulation of the income-creating power of the proportional income tax in the foregoing special situation, therefore, understates its power in the present situation.

There remains the possibility that the schedule in the marginal efficiency of investment may have an elasticity greater than unity. This situation brings the analysis to the second respect in which the foregoing special situation is unique. When the

[1] See diagram on page 64.

schedule has an elasticity of unity it makes no difference to the amount of income creation how the tax receipts are spent. The total return received by investors is fixed, no matter what the amount of investment. When the elasticity is either more or less than unity, the way in which the tax receipts are spent determines the income creation. When the schedule is inelastic, the tax outlay must be for consumption. If the outlay were to be devoted to investment, the total return received by private investors would be diminished. Hence private investment would be reduced. To maximise the income-creating power of the proportional tax requires that the tax outlay be consumed when the schedule is inelastic.

When the elasticity of the schedule in the marginal efficiency of investment is greater than unity, the tax outlay if devoted to consumption will not create the maximum income. In fact, if the elasticity were great enough, income destruction would be the result. The reason is that a given tax reduces investment more, the greater the elasticity of the schedule. If this reduction is large enough, it more than offsets the income-creation which results from the transfer of saving of taxpayers to the consumption of the recipients of the tax outlay. In this situation the tax outlay must be devoted to expanding private investment to maximise the income-creating power of a given tax.

The expansion in private investment may be achieved by lending the receipts without charge to private investors on condition that they invest a stipulated additional sum and receive the entire return.[1] For example, if the marginal efficiency of investment has been lowered to 1%, if the normal-supply price is 2% and the tax is 50%, then $3 of tax outlay must be coupled with each dollar of private investment. The gross return per dollar is 4%; and after the 50% tax, investors receive the normal return of 2%.

The question arises, why does private investment expand under this program of lending tax receipts without charge? The answer rests upon the elasticity in the marginal efficiency of investment. When the schedule has an elasticity of unity, the lending of the receipts does not expand private investment beyond what it would be if the receipts were consumed. In contrast to this unique situation, private investment is larger under the lending program when the schedule has an elasticity greater than unity, because the total return received by private investors is larger than without the program. This statement will have

[1] R. F. Kahn, "The Relation of Home Investment to Unemployment," Economic Journal, June 1931, p. 192.

been proved if it can be shown that in equilibrium the elastic schedule lies above the one with an elasticity of unity. A glance at the accompanying diagram on page 64 is helpful, although not conclusive.

The diagram shows that any schedule that has an elasticity greater than unity, and that passes through the equilibrium point between investment and the normal supply price, must lie, to the right of this point, above the schedule having an elasticity of unity. Over this range of the elastic schedule the total return received by investors for any given investment is larger than for the schedule having an elasticity of unity. It now remains to prove that investment must be larger than the equilibrium amount.

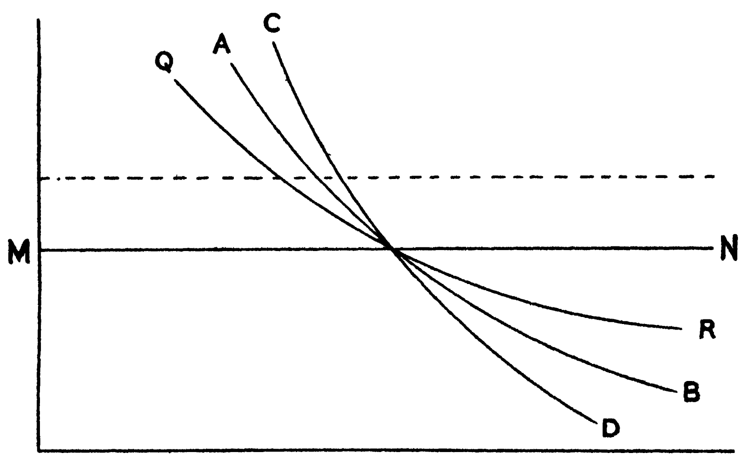
Under the lending program, investment consists of the tax outlay and private investment. Since the equilibrium investment is only a small fraction of income, perhaps 20%, a low tax which does not raise the supply price of investors much, collects a sum which is large relative to this investment. When the return on total investment is given to private investors, their investment is not much less than the equilibrium investment, since their supply price is not much higher. Hence total investment exceeds the equilibrium amount.

In other words, under the lending program the marginal efficiency of investment cannot be higher than the normal-supply price because private investors would receive excessive profits. Competition for the free tax outlay drives investment until the marginal efficiency of investment is below their normal-supply price. In this situation total investment exceeds the equilibrium amount.[1]

[1] This description may be proved as follows. Let e be the marginal efficiency, P be private investment and j the normal-supply price. Investors raise their supply price to $\frac{j}{1-t}$. The total return which investors receive is $\frac{e(P+tY)}{P}$. The latter must equal the former. If we assume that the marginal efficiency equals the normal-supply price then total investment equals the income, which is absurd. Hence the marginal efficiency must be less than the normal-supply price, and total investment under the lending program exceeds the equilibrium amount before the tax.

Let AB have an elasticity of unity and MN be horizontal. Let CD be any schedule the elasticity of which is less than unity and which also passes through the intersection of AB and MN. Then above MN, CD lies to the right of AB; and its intersection with any supply price which covers any proportional tax lies to the right of the intersection of AB with the same supply schedule. Let QR be any demand schedule the elasticity of which is greater than unity and which also passes through the intersection of AB and MN. Then to the right of this intersection QR must lie above AB. Hence for all amounts of investment in excess of this equilibrium, private investors receive a total return which is larger the more elastic the schedule.

In summary, the proportional income tax may be income-creating in all positions of the schedules of demand and supply of investment. That is, when the demand schedule has an elasticity less than unity the tax outlay must be for consumption; and when this schedule has an elasticity more than unity the tax outlay must be loaned or invested to encourage private investment to maximise the income-creating power of the tax. There is the special situation in which the demand schedule has an elasticity of unity and the supply schedule is infinitely elastic. The situation is unique, for neither form of using the tax outlay is more income-creating than the other, and the power of the tax to create income in this situation is less than for any other positions of the demand and supply schedules.



II

When the deflationary gap is closed by the Government's running a current deficit and borrowing the excess saving, the government outlay which results from this policy comprises two expenditures: the deficit which is necessary to fill the gap and the interest charge on the growing debt. Although these two components vary relatively as well as absolutely depending upon the environing conditions under which the interest charge is financed, the outlay increases indefinitely when the gap is constant. Under the assumption (*b*) that the position of the consumption function and the schedules of saving and investment are constant, the deflationary gap remains indefinitely. Thus the deficit must continue in every successive period to prevent the deflation. Since the deficit continues endlessly, the debt grows continuously; this in turn causes the interest charge to mount without limit

providing the interest rate cannot be continually reduced. It is reasonable to believe that the interest rate was at the minimum before deficit spending was considered a permanent necessity; because otherwise the fall in the rate could have stimulated investment and filled the gap. Hence the conclusion is inevitable that a policy of deficit spending which must permanently close a deflationary gap requires an ever-growing government outlay.

The rate of growth of this combined outlay varies with the conditions under which it occurs. The following are the more important conditions : (*a*) whether the national income is growing as a result of forces which are independent of the policy; (*b*) the marginal propensity of the government-security holders to consume; (*c*) the rate of interest paid on these securities; (*d*) whether the interest charge is financed by borrowing; (*e*) whether the interest charge is tax-financed, and the nature of the taxes. These conditions may be combined in various ways. For illustration two groups are given, one of which causes a slow rate of growth in the government outlay and the other a rapid increase.

The following combination of conditions causes a slow growth in the government outlay. When the income increases at a rate which is above the rate of interest, the interest charge may be loan-financed without causing a price inflation. When the rate of interest on the government debt is low, the government debt grows slowly. When the marginal propensity of the government-security holders is high, the interest charge helps to close the gap and the current deficit need not be much larger than the gap.

In contrast to this combination is the following. When the rate of interest on the government debt is higher than the rate of increase in income, the interest charge must be in whole or in part tax-financed to avoid price inflation. When the marginal propensity of the interest recipients is low, and when the growing tax payment to meet this mounting cost comes out of consumption, the deflationary gap is actually widened, causing a larger current deficit. This in turn makes the debt increase faster and aggravates the process. When the mounting taxes also impinge upon the supply price of investors, investment is reduced, the gap widened and the vicious circle set in motion. Under these conditions the government outlay increases rapidly.

Various other combinations of these conditions are possible, but they would serve no useful purpose here. The significant point is that no matter what the combination may be, deficit spending to fill a constant deflationary gap requires an ever-growing government outlay.

III

Space does not here permit a complete comparison between the income-creating power of the proportional income tax and that of deficit spending, for two reasons. There are too many special situations under each alternative to permit a comparison of each with all others; and there are indirect reactions to each method which thus far in this paper have been omitted. Such indirect reactions may include the following: an upward shift in the consumption function as a result of increasing liquidity due to the growing debt; an upward shift in the consumption function as a result of the knowledge that higher taxes will come if one does not spend; deflationary fears from an ever-growing debt; and over-estimations of the tax burden. These matters must be considered before a final decision is possible.

In addition, several criteria for comparison are important for a final choice. There is the initial question of which method is the more politically acceptable; then, which of the two is more easily administered; and lastly, which creates the more income in the long run? This last question is the only one which is treated here, because it seems to me the most fundamental.

The previous sections have indicated that when the deflationary gap is a given amount, the tax outlay necessary to close this gap is a fixed sum in all situations of demand and supply; while the government outlay necessary to fill this gap by deficit spending increases indefinitely. Since the necessary tax outlay exceeds the gap, and since the initial deficit equals the gap, we reach the following conclusion: in the short run the government outlay required to fill the gap is smaller under the policy of deficit spending than under the method of the proportional income tax; in the long run the reverse is true. Of course the period during which the government outlay under deficit spending is less than the tax outlay varies with the assumed conditions; but the final result is the same.

This conclusion, nevertheless, must be modified for the long run when the deflationary gap is assumed to be a constant proportion of a steadily rising income instead of being a fixed amount. In a given situation which is particularly favorable to deficit spending the government outlay may never in the long run exceed the tax outlay. In this given situation there are the following assumed conditions: income is increasing at a constant percentage rate which equals the rate of interest; the growing interest charge on the ever-expanding debt is financed by proportional income

tax; the interest charge on the growing debt is a mere transfer of income, which is neither income-creating nor income-destroying; the schedule of the marginal efficiency of investment has an elasticity of unity and the supply schedule is infinitely elastic. Under these assumptions the government outlay under deficit spending approaches the limit of twice the gap, while the tax outlay may be more than this unless the slope in the consumption function is steep enough.[1]

Perhaps the only general conclusion to which this analysis leads is that comparison between the two methods of income creation, taxation and deficit spending, is too inclusive to be significant, and comparison must be on the basis of specific situations.

JOSHUA C. HUBBARD

Bryn Mawr College,
Bryn Mawr, Pa.

[1] Proof is as follows. Let s be the constant percentage of income which states the deflationary gap. The current deficit must be the same percentage of income because there is no leakage through the interest charge. Since the debt income ratio approaches $\frac{s}{r}$ (where r is the constant rate of increase in income (E. D. Domar, "The 'Burden of the Debt' and the National Income," *American Economic Review*, xxxiv, December 1944, pp. 808–10)), and since the rate of interest also equals r, the interest charge approaches s% of income. Hence the government outlay under deficit spending in this special situation is $2s$% of income.

Continuing the analysis of section I we have $t(AP - mp) = s$ because the constantly increasing income cancels out of the equation. Hence, when the difference between the average propensity and the marginal propensity equals one half, the government outlay under both methods is the same. If the difference between the propensities is more than one half, the tax outlay is the smaller of the two.

MR. HARROD'S DYNAMICS [1]

No one will disagree with Mr. Harrod that modern economic theory lacks, and badly needs, a system of analysis dealing with a dynamic society. Keynes's *General Theory of Employment* broke through the husk of static analysis, but, apart from some *obiter dicta*, scarcely developed any theory of long-run development. Mr. Kalecki's pioneering work has been very little followed up (Mr. Harrod makes no reference to him); many others have shot at a venture into the mists, but we have no systematic body of long-run dynamic theory to supplement the short-period analysis of the General Theory and to swallow up, as a special case, the long-run static theory in which the present generation of academic economists was educated. Mr. Harrod has boldly set out to sail these uncharted seas, and there is no doubt that he has undertaken a voyage of the greatest interest. Unfortunately his exposition is so idiosyncratic, and the matter is so closely packed in the small compass of five lectures, that his book is extremely hard to follow (the original audience of the lectures must have had a strenuous time of it). In this article I shall attempt to give an outline of what I understand him to be saying, omitting his algebra, and somewhat re-arranging his order of presentation.

As is natural in a discussion of this kind, the level of abstraction is high. What sort of world does Mr. Harrod contemplate? First of all we must notice that he takes a high line with the index-number problem. He operates throughout with a "constant goods-value of money" and deals with quantities of output, real income and capital without any reference to changes in their composition in terms of concrete commodities. He is dealing with a world in which output and consumption per head are rising through time, and productive technique is improving. Thus it is natural to suppose that new commodities are constantly coming into existence, and new types of machinery must certainly be coming into use. He does not discuss what, in such a case, a constant value of money means, and for purposes of the present discussion we must follow him in leaving this skeleton locked up in the cupboard.

Next, his world is dynamic in the sense that continuous change

[1] R. F. Harrod, *Towards a Dynamic Economics*, London: Macmillan, 1948. Pp. 169. 7*s*. 6*d*.

is going on through time, but it is a world without history. Every change that took place in the past was digested, so to speak, as it occurred. Time rolls on in a homogeneous stream, and it makes no difference at what point we dip into it. Also it is a world without politics. There are no conflicts of interest within society, and almost no influence of the social environment upon individual behaviour. At the same time it is a capitalist world, with entrepreneurs, rentiers and workers, and with a monetary and fiscal system. The greater part of the argument is confined to the problems of a closed economy.

The first question which Mr. Harrod examines is whether there is any natural tendency for the propensity of the community to save to adapt itself to the rate of capital accumulation required to sustain a steady expansion in production.

What is this " required " rate of accumulation ? There are no arrears of investment needed to adapt the stock of capital to changes which have occurred in the past (no war-damage to make good, no revolutionary new discoveries not yet fully digested into productive technique). Change, however, is going on currently. The population may be growing, and technical progress is taking place. Mr. Harrod simplifies the problem by postulating that any change which is going on takes place at a steady rate. He puts diminishing returns from land on one side as a problem which would complicate the argument out of proportion to its importance. For the purposes of the first stage in the analysis he assumes a constant rate of interest. Now, in these conditions there is a certain rate of increase in total output which is possible, with continuous full employment (full employment being interpreted in a loose sense, admitting of adequate flexibility in production). This rate of expansion depends, with a constant rate of interest, upon the increase in working population and the increase in output per head due to technical progress. Mr. Harrod calls this the " natural rate of growth " (*Gn*). It is important to be clear that it is not natural in the sense of being the rate of growth which will tend to come about under the free play of economic forces. It is rather to be understood as the maximum rate of growth which the underlying conditions make possible.

This rate of growth requires a certain rate of capital accumulation. Let us look at the two components of the rate of growth separately. If technique is unchanged while population is growing, output per head is constant (diminishing returns from land having been ruled out). Investment is required to equip growing numbers with the already prevailing amount of capital

per head. If population growth takes the simple form of a constant proportional rate, $x\%$ per annum (age composition and the proportion of workers being constant), then capital accumulation at the rate of $x\%$ of the amount of capital will give the required expansion. Each year the increment of numbers is larger than the year before, the required value of net investment is larger than the year before, and the value of replacements of capital is larger than the year before. (In Mr. Harrod's world, with time but no history, there cannot be any indestructible equipment. With constant technique and a given rate of interest, there is a given length of life of capital goods, which determines the annual amount of replacements required.) If investment at the right rate is carried on (thriftiness being such that consumption per head is constant) national income, gross and net investment and total consumption all expand at the same rate, and the proportion of workers engaged on new investment, on replacements and on production of consumption goods are each constant.

Now consider technical progress with a constant population. Changes in technique may alter the ratio of capital to output (at normal-capacity working). Mr. Harrod divides inventions and improvements into neutral, capital-using and capital-saving, according as they cause the ratio of capital to output, at a constant rate of interest, to remain unchanged, to increase or to diminish.[1] In Marxian language, with neutral technical progress the organic composition of capital does not alter. With capital-using progress (which Marx assumed to be the rule) the organic composition of capital is rising through time.

Mr. Harrod makes great use of the conception of neutral technical progress, and we must pause to examine what it means. It does not entail that every invention is neutral, but that inventions are neutral on balance. Neutral progress in Mr. Harrod's conception results from an equal rate of increase in output per head at all stages of production. To reduce the conception to its simplest possible form, and to keep the index-number problem safely immured, let us imagine that production can be divided into two departments—making machines and making final output with the aid of machines, only one type of machine and one type of commodity being produced. Proportions of factors employed are not necessarily rigidly fixed by technique, but the most profitable amount of machinery per unit of output is governed by the ratio of price of commodities to the price of machines and by the rate of

[1] Cf. "A Classification of Inventions," *Review of Economic Studies*, February 1938.

interest. Now some device is introduced which increases output per man hour equally in both departments. Since both are affected in the same way, the relative prices of machines and final commodities are unchanged, and, the rate of interest being constant, the ratio of machines to output will be unchanged. The relative shares of labour and capital in real national income are constant. Labour is released from producing the old rate of output and from maintaining the old stock of machines in the same proportion. This labour is available for producing additional output, and this additional output requires an increase in the stock of machines which bears the same ratio to the old stock as the new rate of total output bears to the old. Thus the rate of capital accumulation required for the expansion of output made possible by the progress which is going on (with continuous full employment) is proportionate to the rate of increase in output, just as it is when population increases with constant technique. As soon as we depart from some such simplified case the index-number problem becomes formidable. Technical progress is largely bound up with alterations in equipment. Amortisation funds attached to old machinery are being continually reinvested in improved machinery, and the conception of a constant stock of capital, or a given rate of increase in the stock of capital, becomes extremely vague, not to mention the difficulty of defining the rate of increase of output when new commodities are coming into existence. But Mr. Harrod does not stop to discuss these questions.

With neutral technical progress and a constant rate of interest, the ratio of capital to output is constant and the required rate of accumulation is proportionate to the rate of increase of output. If progress is on balance capital-using, the ratio of capital to output is increasing (at a given rate of interest). New investment is then required to provide additional capital for the old rate of output. (Now our simple example does not apply, and the skeleton rattles disturbingly in the cupboard.) The required rate of accumulation no longer bears a simple relation to the rate of increase of output, but has two terms, one depending upon the rate of increase of output, and the other upon the level of output. Mr. Harrod puts this on one side for separate discussion, and assumes throughout the main part of his argument that progress is neutral on balance. Even then, Mr. Harrod recognises that to reduce capital requirement to a function of income is an over-simplification. His "relation" (which used to be known as the "acceleration principle") cannot bear all this weight. He admits that some investment may be of a long-range character not closely related to the

requirements of current output (armaments and war must come into this category). He provides us with a symbol for it (k) and says we may make it as large as we like, but he does not discuss it in detail, and it is easier to follow his analysis in its purest form, without regard to k.

Neglecting k, and combining population growth with neutral technical progress, we arrive at the rate of accumulation required if the maximum possible rate of expansion in total income, corresponding to continuous full employment, is to be enjoyed, the required rate of accumulation being proportionate to the rate of growth of income.

Now the question to be considered is whether there is any natural tendency for thriftiness to adjust itself to capital requirements. Here we notice the shift of emphasis when the General Theory is transposed from short-period to long-period terms. In most of the discussions arising out of the General Theory, thriftiness is taken as given. There is a certain rate of saving corresponding to full employment, and the main question is whether investment tends to reach that level, and, if it fails to do so, what should be done to make it. This is apt to lead to the state of mind of regarding investment as an end in itself, and to the justification of digging holes in the ground and filling them up again. In its original context this was perfectly correct, but long-term policy cannot be based on hand-to-mouth expedients for curing a slump, and Mr. Harrod's analysis is certainly salutory in directing attention to long-term problems.

To make the next step in the argument it is necessary for him to consider the influences which determine thriftiness, and to inquire whether there are any cross-connections between capital requirement and thriftiness which tend to keep them in harmony. He distinguishes between net saving and the amortisation of existing capital. He assumes that the rate of technical progress is allowed for by entrepreneurs, who adjust amortisation funds to the rate of obsolescence of capital equipment, so that the stock of capital in existence at any moment is being continuously adapted in form without change of value (any exceptions are dumped into that convenient hold-all, k). Thus a more rapid rate of invention is offset by a higher rate of amortisation, and no net saving is required to adapt past accumulated capital to new forms.

Here Mr. Harrod makes a curious point. Suppose that instead of assuming prices constant we assume money wages constant; then prices of commodities (including capital goods) are falling

continuously as progress takes place. If individual concerns aim at keeping the money value of their capital intact, amortisation funds as they are reinvested provide continuously increasing amounts of physical equipment and of stocks. In the simple case where population is constant, the rate of interest given, and progress neutral, amortisation funds provide for the whole of the required accumulation of physical capital, and no net saving at all is required. However, in the rest of the argument Mr. Harrod continues to assume constant money prices, so that all adaptation of existing capital is looked after by amortisation, and all additions to the stock of capital require net saving.

Mr. Harrod discusses the influences determining the supply of net saving mainly in terms of the thriftiness of individuals. He distinguishes between time-preference and the effects of falling marginal utility of income, and shows how they were confused in the traditional concept of "discounting the future." He regards the elasticity of the income-utility curve of a representative individual as something which exists in nature, and proposes a new method of discovering it experimentally. Let income be paid in the form of a lump-sum bonus plus a piece-rate per unit of work. At the starting rate the individual freely chooses how much work he is willing to do. Now raise the bonus, and see what change in the piece-rate is necessary to keep the amount of work he does unaltered. By this means the marginal utility of income could be measured in terms of the marginal disutility of a given amount of work. (Mr. Harrod playfully suggests that managers and shop stewards should organise the experiment, but the ideal field for it is the ancient universities. Increase our fellowship dividends, and then see at what rate per hour we will take a given number of pupils.) Unfortunately this method contains the same basic fallacy as earlier attempts, such as Dr. Frisch's method of measuring the marginal utility of income in terms of the marginal utility of a given quantity of sugar. The unit of measurement is not independent of the magnitude to be measured, because the utility of leisure to an individual is strongly influenced by the funds available to him for having a good time, so that the disutility of work rises with income. If we cannot measure marginal utility of income it is impossible to say what it means. The foundation of much of this part of Mr. Harrod's argument is thus exceedingly shaky. But even though the answer he gives may be somewhat mystical, the question he is asking is real and important.

He divides saving into three categories: savings designed to

be spent in old age or emergencies of private life—the amassing of a " hump "; saving for heirs; and corporate net saving carried out by a firm for the sake of the business, over and above the saving which individual shareholders might wish to make, through its agency, for their private purposes.

Mr. Harrod considers that population growth favours " hump " saving, as each successive generation contains more individuals than the last at saving ages relative to the number of retired persons living on their humps. This is disputable. The more rapid the rate of growth of population the larger is likely to be the average size of a family, and the smaller the margin above subsistence from a given individual income. A good deal more investigation is required before we can say on which side the balance is likely to be, and it seems doubtful whether an element of harmony is here to be found between saving and capital requirements.

After an argument of some subtlety Mr. Harrod concludes that " hump " saving is likely to grow at a greater rate than income per head, so that here there is a potential element of disharmony. He has little to say about the effect of the total stock of wealth on the rate of saving.

About saving for heirs he has no very definite conclusions to offer, but again finds no presumption in favour of harmony. In general, private saving is likely to rise with real income, but it is related to the level of income, not to its rate of growth.

Only in the case of corporate saving is there likely to be some harmony between thriftiness and capital requirements, because favourable prospects for investment in the future are likely to promote the building up of company reserves, but even here the connection is weak and uncertain.

Although Mr. Harrod devotes a good deal of space to these questions the analysis does not go very deep. To mention only one point, a discussion in terms of individual psychology leaves out of account the major influence on the thriftiness of a community—the distribution of income between its members. But, however that may be, there is no reason to doubt Mr. Harrod's conclusion that there is no presumption that thriftiness (with a constant rate of interest) tends to adapt itself to the rate of capital accumulation required to sustain a steady expansion of production.

The next question is whether the rate of interest will tend to move in such a way as to secure harmony between thriftiness and capital requirements. This question has two parts. First, how a

movement in the rate of interest would affect thriftiness and capital requirement if it took place, and, second, whether it is likely to take place.

On the first question Mr. Harrod, applying his formula for time-preference and income utility, concludes that a fall in the rate of interest will tend to reduce " hump " saving, and that the traditional view that some individuals will save more (from a given income) at a lower rate of interest is fallacious, but the argument is not set out fully enough to make it clear from what assumptions this follows. He hazards no guess as to the effect of a fall in the rate of interest on saving for heirs. A fall in the rate of interest will increase capital per unit of output capacity, in a given state of knowledge, in so far as technical conditions permit of variation. Mr. Harrod is highly sceptical of the influence of the rate of interest on methods of production, and gives little weight to this factor. In any case it would be partially or wholly offset by the stimulus to corporate saving which would be given by an increased demand for capital within firms. It is to be observed that the increase in capital per unit of capacity (in so far as it occurs) due to a given once-and-for-all fall in the rate of interest requires a once-and-for-all bout of capital accumulation (which may, however, be imagined to be spread over many years). When the appropriate " deepening of capital " has taken place there is no further need for accumulation. Thus to maintain a given rate of accumulation, under this influence, a continually falling rate of interest is necessary.

To sum up—if thriftiness can be represented as a constant proportion of saving to income at a given rate of interest, and if this proportion falls with the rate of interest, then in any given state of population growth and technical progress, there exists a certain value of the rate of interest which would equalise the full-employment rate of saving with capital requirements, and fulfil the conditions for steady progress at the maximum possible rate. If the proportion of income saved increases with income, while the required rate of accumulation is constant, a continually falling rate of interest is required for steady progress, in this case the influence on thriftiness being possibly helped out by a continuous increase in capital per unit of output. If the required rate of accumulation is rising relatively to thriftiness (owing to capital-using technical progress) a continuously rising rate of interest is required.

Is there any reason to expect the rate of interest to behave in the appropriate way? Mr. Harrod makes an attack upon the

traditional view that the rate of interest tends to establish equilibrium between saving and capital requirements which is more drastic than Keynes'. Keynes showed that the traditional view was fallacious. Mr. Harrod maintains that it was non-existent. He gives it two possible interpretations. One is that the capital market foresees the long-term movements in the rate of interest which underlying conditions require, and brings those movements into existence. This leads to violent paradoxes. For instance, if the situation requires a continuous fall in the rate of interest, and this fall is foreseen, the present value of irredeemable stock becomes fantastically great. Alternatively, the traditional view may be interpreted to mean that the market takes no view of the long-run course of prices of assets but writes them up and down from day to day in response to the current state of demand and supply of new capital. This would involve revaluing the whole outstanding stock of assets in response to every chance discrepancy between current investment plans and full-employment saving, and it leads to results no less absurd than those arising under the first interpretation. Neither interpretation provides an account of market behaviour remotely resembling what actually happens, and Mr. Harrod falls back (rather in the spirit: if you know a better 'ole, go to it) upon Keynes' theory of the rate of interest in terms of demand and supply of money. He concludes that there are no grounds for expecting the rate of interest to behave in such a way as to secure steady progress, though it may have a vague and feeble influence in the right direction.

Is there an influence promoting harmony to be found in the movement of wages? When thriftiness is excessive in relation to capital requirements there is unemployment, and money-wage rates may be expected to fall. Following Mr. Kalecki's version of the General Theory on this point, Mr. Harrod shows that falling wages and prices are more likely to increase the disharmony than to cure it.

He does not touch upon the sophisticated argument that falling wages will drag down the rate of interest (by reducing the demand for money) and so bring it to the required level. Presumably he would dismiss this contention on the ground that the effect of prospective falling prices in reducing the inducement to invest and increasing the burden of debt would swamp any possible stimulus which a falling rate of interest might give.

We have now come to the conclusion that there is no presumption that harmony between thriftiness and capital requirements will be maintained. This is the projection into the long period of

the central thesis of the General Theory. We must now introduce a fresh layer of complications into the analysis.

It might happen by chance that the relationship between thriftiness and capital requirements was just right, so that the rate of saving corresponding to full employment was continuously equal to the required rate of capital accumulation (in Mr. Harrod's terminology G_n is then equal to G_w, of which more anon). There is then a definite rate of capital accumulation which could be maintained continuously, and which would ensure constant full employment (in the loose sense) and the growth of national income at the maximum rate made possible by changes in population and technical progress. But even when such a rate of accumulation exists, there is no guarantee that it will be realised. If all entrepreneurs got together and found out what the rate was they might agree to put it into effect, but so long as investment is determined by innumerable private decisions there is no reason to expect that the right rate will be arrived at. And once the rate of accumulation is off the steady course it can never get on to it, but reels along drunkenly below it.

Mr. Harrod provides a rough sketch for a theory of the trade cycle to be superimposed upon the long-period analysis. If, at any moment, the rate of investment falls below the level corresponding to steady growth, the consequent slackening of effective demand causes the expansion of output to fall below the steady rate. Capital requirements are thereby reduced. The rate of investment falls further, and production declines in the familiar self-propelling downward movement into a slump. In a revival, which starts from a position with unemployed man-power available, the self-propelling up-swing may increase output at a much more rapid rate than that which is possible once full employment has been reached. If the actual rate of growth of income (G, or $\frac{\Delta Y}{Y}$ where Y is annual income) exceeds the long-run rate (G_n), then according to Mr. Harrod's system of ideas, the increment of capital required to provide for the expansion of output which takes place over a short period is greater than the rate of accumulation which can be continuously maintained. As an analysis of the trade cycle this seems rather unsatisfactory, for a system of ideas in which investment is governed purely by the "relation" cannot easily deal with the fact that in the slump there is unused capacity, as well as unemployed labour. The investment required to provide equipment to produce an increment of income is by no means a simple function of the increment of income when there is

surplus capacity, and perhaps redundant stocks, left behind by the last boom. Working capital, however, lends itself to this kind of analysis and if all equipment were very short-lived Mr. Harrod's method would not be far wrong.

His analysis applies most easily to the breakdown of a boom. Once investment has reached a level exceeding the long-period rate (the rate of accumulation corresponding to G_n) it is clear that it cannot be maintained for long. There are two quite distinct ways in which the inevitable breakdown may come. The boom may knock its head against the limit set by available labour while it is still in full swing. Investment projects may be great enough (combined with the propensity to consume) to generate a demand for more labour than there is. Then a wage inflation may set in, or, if wages are held down, there will be a sharp rise of prices relatively to wages causing an increase in the share of profits in national income and so reducing the propensity to consume; or mere physical difficulties in getting hold of the right kind of labour may check the expansion of investment. In one way or another the expansion of output will be brought to a halt. And as soon as output ceases to expand, the rate of investment begins to fall. Alternatively, the boom may come to an end before full employment has been reached because the rate of growth of income is smaller than the rate of growth of the stock of capital, so that capital grows relatively to output during the course of the boom, surplus capacity begins to emerge, and the inducement to invest falls off. In either case, as soon as the actual rate of investment falls, the self-propelling down-swing into a slump sets in.

Mr. Harrod does not seem to distinguish quite clearly between the case where the boom is cut off in its prime (or explodes in hyper-inflation) because it reaches the physical limit of employment, from the case where it comes to an end because the rate of expansion is too great to be profitably maintained. But in any case he is not concerned to codify the theory of the trade cycle (he freely admits that his long-period G's are not a handy instrument for short-period analysis) but simply to show that, even when underlying conditions make steady progress possible, there is no reason to expect that it will occur.

Still worse, as we have seen, there is no reason to expect that conditions will be such that steady progress is possible (under *laisser faire*). To reduce the argument to its simplest form, suppose that thriftiness can be represented as a constant proportion of income saved, and that the rate of capital accumulation

required for steady progress with full employment is also a constant proportion of income (as would be the case with neutral technical progress and a constant rate of interest). Now, the first proportion may be smaller or greater than the second (thriftiness less or greater than required accumulation). Mr. Harrod suggests that this can also be expressed by saying that the ruling rate of interest is below or above the rate required for steady progress, but this way of putting the matter is somewhat artificial, for it may be that the influence of the rate of interest is so weak that no conceivable rate of interest would do the trick, so that the "required rate of interest" has no meaning; and even when there is a definite value for the required rate it may be one which could not conceivably obtain (for instance, it might be negative).

If the required rate of accumulation exceeds thriftiness then it is likely that, underlying the ups-and-downs of the trade cycle, there will be a constant buoyancy of the inducement to invest, periods of near-full employment will be frequent, inflation a danger that has to be guarded against, the rate of progress actually realised will be held below the maximum possible rate by scarcity of saving, and thriftiness will be a social virtue, in the sense that any increase in thriftiness would make a more rapid growth of income possible. In short, conditions will be those to which the maxims (though not the analysis) of nineteenth-century economics apply.

Mr. Harrod suggests that the *General Theory* fulfilled only half its task because it neglected the possibility of deficient thriftiness (or a market rate of interest below the required rate). This appears to be rather misleading. It is true that Keynes, being interested in the problems of the nineteen thirties, did not elaborate the analysis of conditions of excessive effective demand, but he provided a sketch for that analysis and the methods of thought of the General Theory have proved indispensable in discussing the present-day inflationary situation.

Turn now to the opposite case, where the proportion of income saved exceeds the rate of accumulation required for steady progress with full employment. Then the level of investment which would ensure full employment results in a rate of increase in the stock of capital in excess of that corresponding to the rate of increase in output. The new capital which would come into existence if this rate of investment were continuously maintained would be partly redundant to requirements. Therefore that rate of investment cannot be maintained. This is something quite apart from the trade cycle and corresponds to what is sometimes

called secular stagnation, or chronic unemployment. The analysis seems to bear a close resemblance to Hobson's thesis that saving causes crisis because there is no outlet in consumer demand for the goods which new capital equipment produces. Mr. Harrod's analysis provides the missing link between Keynes and Hobson.

So far we have had fairly plain sailing. We must now introduce Mr. Harrod's third G, G_w, " the warranted rate of growth," which is the element in his exposition which makes it baffling and mysterious. The " warranted rate of growth " is such that, if it is maintained, producers will be content with what they are doing and will continue to maintain it. Mr. Harrod does not enlarge on the subject of what makes producers content. The meaning for contentment which best seems to fit his scheme of ideas is that capital is always kept working at normal capacity. Entrepreneurs are satisfied with investment decisions taken in the recent past if the new capital (as well as all pre-existing capital) is being profitably utilised (though the question of what rate of profit will keep them happy is nowhere discussed). To put the matter in terms of how entrepreneurs feel is rather confusing, because we are all the time dealing with averages, and particular industries are all the time moving faster or slower than the pace of the economy as a whole. One entrepreneur whose new investment has overshot the mark and whose new plant is working under capacity will not be consoled by the fact that another is straining his plant beyond normal capacity to keep up with a super-average share of demand. However, if I have understood Mr. Harrod aright, the " warranted " rate of growth is that rate of growth of output $\left(\frac{\Delta Y}{Y}\right)$ which ensures the continuous full-capacity working of the stock of capital considered as a whole (full capacity, like full employment, being taken in a loose sense, allowing for some play in the rate of production).

What does this imply? The full utilisation of the stock of capital in existence at any moment yields a certain rate of output and income. Corresponding to that rate of income is a rate of saving, depending upon the thriftiness of the community. For that rate of income to be realised, investment must be equal to that rate of saving. This rate of investment yields a certain rate of increase in the stock of capital. Thus the " warranted " rate of growth is that rate of growth of output $\left(\frac{\Delta Y}{Y}\right)$ which would result from the continuous operation at full capacity of the stock of capital, when the stock of capital is continuously growing at a

rate dictated by the investment which just absorbs the rate of saving corresponding to full-capacity income.

What is the relationship between full capacity and full employment? On this question Mr. Harrod's line of thought is particularly elusive, but the following seems to be what is implied in his argument. When thriftiness is deficient, the "warranted" rate of capital accumulation is less than the rate required by steady progress with full employment. The actual rate of accumulation will pursue a cyclical course, but taking good times with bad, the rate of accumulation is held in check by the fact that the full-capacity rate of saving yields a rate of increase in the stock of capital less than the required rate. Now, if population is increasing, the stock of capital will be growing more slowly than available labour, while the amount of employment associated with a given stock of capital is continually falling as technical progress takes place, so that there will be a progressive increase in unemployment. (Here we cannot avoid history, for the amount of unemployment at any moment will depend upon how long this process has been going on.) This unemployment is not susceptible to Keynesian remedies, for, if the level of effective demand were boosted up, for instance, by putting some of the redundant labour to work on public-investment schemes, the demand for consumption goods would be raised above the capacity output of existing capital equipment, and an inflationary rise of prices would set in. (To solve the problem, measures to increase investment would have to be combined with measures to check the propensity to consume, by taxation and rationing.) This is a kind of unemployment which is not contemplated in the General Theory. It may be appropriately called Marxian unemployment (as opposed to Keynesian unemployment, which is due to deficiency of effective demand). For though nothing is farther from his thoughts, Mr. Harrod has led us to Marx's theory of the reserve army of labour, which expands and contracts as the growth of population runs faster or slower than the rate of capital accumulation.

This analysis applies to the situation of over-populated, backward countries. Mr. Harrod is more interested in advanced economies suffering from the reverse problem of excessive thriftiness. When thriftiness is excessive relatively to the rate of accumulation required by steady growth with full employment, the rate of investment which would maintain effective demand at the full-capacity level would result (if it were realised) in a rate of growth of the stock of capital in excess of the required rate. Such a rate of accumulation cannot be maintained, for, if investment

ruled at this level for a time, surplus capacity would presently emerge. Either this will be foreseen, and there will be a continual drag on the rate of accumulation, or an occasional burst of high investment will create surplus capacity, and will consequently be followed by a prolonged slump.

There are two quite distinct ways in which surplus capacity may emerge if investment is maintained for a time above the rate required for steady progress with full employment. The first is the Hobsonesque situation in which effective demand is not expanding fast enough to keep the stock of capital in profitable use as capacity grows. The second is that there may not be sufficient labour available to man up new equipment as it comes into being. Technical progress is continually reducing the number of men required to produce the current rate of output, and the working population may be growing. But it might happen that the rate at which labour was thus becoming available for increased output was less than in proportion to the rate at which the stock of capital was expanding. Then equipment would presently be standing idle because workers could not be found to operate it. In Marxian language there would be over-production of capital. This would deter further investment, and a slump would set in. Now indeed there is unemployed labour available, but the fall in the rate of investment has started the self-propelling down swing of income, and there is not enough effective demand to keep even the old stock of equipment in use.

It may be that this is a mare's nest. It is hard to imagine investment being deterred by a prospective scarcity of labour. Rather, necessity being the mother of invention, it would be natural to suppose (as Marx does) that technical progress in such a case would be given a capital-using twist, so that labour required per unit of capital would be reduced at a faster rate. But then we fall out of the frying-pan into the fire, for, with capital-using inventions and a constant rate of interest and rate of profit on capital, the relative share of labour in national income is falling, and the share of profits rising, through time, so that thriftiness is increasing (all the more because corporate savings will be deliberately stepped up to finance the new investment) and the Hobsonesque limit upon accumulation will come into play.

In Marx's system, also, capital-using progress (rising organic composition of capital) leads to crisis, but not because the relative share of labour falls, reducing effective demand: on the contrary the trouble arises because the relative share does not fall (the

rate of exploitation tends to be constant) so that the rate of profit on capital falls as capital accumulates.

This excursion has carried us some way from Mr. Harrod's text, but it serves to show the vistas which his analysis opens up. Mr. Harrod himself makes an excursion into the analysis of international investment which is full of pregnant suggestions, but limitations of space prevent us from following it here.

Mr. Harrod's main purpose is to lead up to some prescriptions for policy (though he derives most of them straight from the analysis of the *General Theory* without much dependence on his own new contributions). He regards the problem of secular stagnation, for the United States, if not for us, as waiting around the corner of post-war inflation, and he proposes remedies, elaborated with a wealth of fancy, which may be baldly summarised as follows: get the rate of interest gradually down to vanishing point (by appropriate increases in the quantity of money). Set up stores of staple commodities, with instructions to buy and sell at fixed prices (on the analogy of a gold reserve). In conjunction with a wages policy which keeps the average rate of money wages rising at the same pace as average output per head (rather a tall order, this) the operation of the commodity reserve would keep the price level stationary. When effective demand was tending to flag and prices tending to fall, the stores would find themselves buying, thus supplementing other kinds of investment and checking the fall in prices; when demand was in excess of current output the stores would be selling, and disinvesting from their stocks. This provides an anti-cyclical stabiliser. Meanwhile, correct the deficient or excessive effective demand by budget deficits or surpluses, financed by the issue or retirement of interest-free paper. By these means a sort of automatic pilot would be introduced into an otherwise *laisser faire* system, to keep output smoothly on its course.

It is a common vice of present-day economic argument to jump from a highly abstract piece of analysis straight to prescriptions for policy, without going through the intermediate stage of examining how far the assumptions in the analysis fit the facts of the actual situation. There is a big gap between Mr. Harrod's ingenious and instructive manipulation of his three G's and the conditions of any actual economy.

First of all, the effect of distribution of income and of wealth upon thriftiness has been omitted from the argument (Mr. Harrod dismisses the whole question of distribution with some dark hints about the political instability of an egalitarian society). It can

be plausibly argued that the phenomenon of excessive thriftiness is a product of excessive inequality, and that measures to correct inequality, which may be advocated on their own political or humanitarian merits, would, as a by-product, permanently reverse the position, and make deficient thriftiness the normal rule. There seems very little point in discussing artificial measures for absorbing excessive savings until this great question has been argued out.

Next, we must recall that Mr. Harrod's world is one in which there are no arrears of investment requirements to be made up. There is no war-damage to repair; no slum clearance and re-design of towns to clean up the mess which the past has left upon our hands; no rehabilitation of dust-bowls and deserts created by individualistic exploitation of the soil; no backward sections of the community to be brought up to the level of the rest; no massive "Marxian unemployment" to be overcome by industrialisation of over-populated regions; no adaptation of antiquated equipment in the light of already existing technical knowledge; no recent large-scale scientific discoveries to be embodied in industrial equipment. In short, Mr. Harrod's world must not be confused with Europe, Asia or America. (It is true that arrears of investment, along with other complications, can be looked after by Mr. Harrod's k. But the issue here is not the formal correctness of the analysis, but the relative importance of the various elements in it.) Before we have examined what arrears of beneficial investment remain to be made good, there is little point in discussing schemes to throw away potential savings by budget deficits caused by tax-remissions to the wealthy, or schemes of investment in piling up stocks of commodities which (beyond the point at which they are useful in themselves) would be scarcely more productive than digging holes in the ground.

Again, Mr. Harrod's interest policy consists in purely monetary manipulations. Even when the gilt-edged rate of interest has been reduced to vanishing point there would still be great scope for agencies to cheapen the supply of finance to worthy enterprises. There is no knowing how much potential investment, which would provide a genuinely useful outlet for saving, is now held up by the imperfections of the capital market.

Finally (though by no means exhaustively) in Mr. Harrod's world, technical progress falls like the gentle dew from heaven and is not susceptible to any economic influence (we departed from his scheme of ideas, above, in suggesting that a scarcity of labour would promote capital-using inventions). Now, the technical

progress which is relevant to the argument is not merely scientific discovery, but the embodiment of new ideas in actual production. The rate of utilisation of new techniques is not in practice maintained at the optimum level. Even in the most progressive nations and industries there are a great number of relatively backward producers. There is no knowing how much the rate of growth of output per head, at any stage of scientific knowledge, might be raised by appropriate policies. Moreover, scientific discovery itself is not just like the weather, but is susceptible to being directed and speeded up. In short, Mr. Harrod's G_n is not a natural datum, but an object for policy and organisation.

All this goes very much against Mr. Harrod's grain, because to discuss either the distribution of income or measures to increase useful investment brings politics into the economic argument. But his is no way to keep politics out. His resolution to avoid these questions is itself a political decision.

Without a thorough examination of the relationship of his assumptions to reality we cannot take Mr. Harrod's proposals as more than a *jeu d'esprit*, but that does not detract from the interest and importance of his analysis upon its own plane.

JOAN ROBINSON

Cambridge.

REVIEWS

Économie et Intérêt. By M. ALLAIS. (Paris: Librairie des Publications Officielles, 1947. Pp. 800.)

Two physically identical objects available at different dates are different goods, and there is no more reason to expect their prices on a given day to be the same than to expect equality between the prices on a given day of two physically different objects both available at some one date. Now interest is, precisely, a difference between the prices on a given day of two physically identical objects available at two dates distinct from each other. Thus the occurrence of interest need not in itself surprise us. There is nothing in this general consideration to suggest that interest must be positive rather than zero or negative; yet (Professor Allais tells us) the rate of interest has, in fact, always and everywhere been greater than zero. The chief puzzle, then, is to account for this universal positiveness of the interest rate.

Two features of our economic system, he says, would each by itself be a sufficient explanation, and they can work together. First, the desired ratio of a man's capital to his income has an upper limit: the possessor of a million pounds who could get only, say, one-tenth of one per cent interest on it would evidently be tempted to dis-save and enjoy a large consumption during his lifetime. Now, since a large part of wealth is embodied in durable things (especially land) which cannot be rapidly disinvested (that is, themselves or their products consumed at more than a certain pace) a general attempt to dis-save would entail a general attempt to sell durable assets. Thus an indefinite rise in the market prices of durable assets, such as would accompany a fall towards zero of the rate of discount of their future services, cannot occur, and the rate of interest in consequence cannot closely approach zero.

Secondly, in a money economy there is an asset, money itself, which by its liquidity yields a stream of valuable services, and which has zero costs of storage. So long as there is such an asset, no one need accept a negative rate of interest for the sake of exchanging present for future consumption.

Professor Allais shows how interest, in its widest sense of a

price-difference between identical objects available at different dates, could exist in a moneyless, stationary economy where there was perfect foresight; but does it follow, as he believes, that this same explanation of interest operates also in the real world of all-pervading uncertainty and unplannability, which people provide against by holding money? The fact that a gas-fire can make a room warm does not imply that a warm room must contain a gas-fire. Professor Allais believes that the explanation of interest in " real " terms, the Fisherian confrontation of time-preferences with the technical productivity of capitalistic processes of production, is an underlying, long-term governing force whose operation is merely obscured by the short-run play of money and liquidity-preference. Yet if the long-term *money* rate of interest had been held at 3% since Goschen's day, might we not by now have had a bigger capital equipment than we have, a larger income, and thus a lower time-preference? Why should things not work that way round as well?

Although he shows a tenderness for the classic " real " explanation, Professor Allais devotes nearly two hundred pages to *Intérêt et Monnaie*. His conception of liquidity-preference, however, seems to me to overstress the transactions motive and to fall short of a full grasp of the speculative motive. Indeed, amongst the four men to whom he holds himself most indebted, it is Bohm-Bawerk and Irving Fisher who have supplied his theoretical basis and bias, while Lord Keynes and J. E. Meade have stimulated without convincing him.

It is difficult not to feel some little impatience in reading those chapters where the author elaborates at great length and labour a theory which assumes perfect foresight. Is not this rather like building a theory of the weather on the assumption that the earth has no atmosphere? The " accidentalness " of life is almost paralysingly insistent to anyone who thinks about it. Yet Professor Allais cannot really be criticised on this score. His aim has been to trap the elusive explanation of interest by a great encircling movement from all directions, critically considering most of the serious theories which have been suggested, and examining the consequences of a great array of different sets of assumptions. To this task he brings great erudition, an extraordinary patience and thoroughness, an infectious enthusiasm and finally the logical incisiveness of mathematics and the incomparable lucidity of the French language.

The book is so packed with instances of powerful analysis and clear exposition that to single out examples runs a risk of doing

the author injustice. A brilliant theoretical explanation (page 99) of the widely accepted proposition that the rate of saving is almost unaffected by the interest rate is only one of many such insights directly traceable to a mathematical habit of thought.

It cannot be denied, I think, that Professor Allais's original contributions could have been made to stand out more clearly, and that his recommendations for policy could have reached a wider audience, if he had been content to write a shorter book; but he would not then have challenged the serious economist by a piece of scholarship which, by its sheer thoroughness and scope, guarantees the author's sincerity and impressively demonstrates his intellectual power.

G. L. S. SHACKLE

London.

Economics: An Introductory Analysis. By PAUL A. SAMUELSON. (New York and London: McGraw-Hill, 1948. Pp. xx + 622. 27*s.*)

Fundamentals of Economics. By M. H. UMBREIT, E. F. HUNT and C. V. KINTNER. (New York and London: McGraw-Hill, 1948. Pp. xi + 461. 22*s.* 6*d.*)

THE category of introductory textbooks of economics is a wide one comprising a huge number of variants. There is the brief, chatty, come-on-in-the-water's-fine preliminary, designed for the general reader or as an appetiser for beginners; there is the equally brief but austerely stripped and essential statement of first principles, designed to precede and be seriously supplemented by both oral teaching and a mass of peripheral and factual reading; there is the teacher's-companion textbook, a handy framework for class or lecture room; and there is the comprehensive encyclopædia embracing between its covers the substance of an entire lecture course and all its ancillary reading, with theory, institutional fact, statistical matter and the discussion of socio-political implications all complete. Within these sub-categories again may be found wide differences of approach—the mainly inductive and the mainly deductive; the individual and the social; the statistical, the literary and the graphic; and an infinite variety of merit in presentation. It is helpful to any reviewer of a new introductory textbook to place it in this possible range before attempting a detailed evaluation.

The two books under review, being American, fall unmistakably into the class of encyclopædias. Both are the fruit of long

teaching experience; both aim, as is usual in America but rare in Britain, at providing a body of material which could at a pinch enable a student entirely unaided by oral teaching or discussion to cover the course by himself; and the course in question is, for both authors, that one-year-or-less syllabus so much more frequently found in American universities with their wider choice of degree material. Professor Samuelson favours, on the whole, the inductive method, taking the national income as his starting point and making copious use of statistics. Messrs. Umbreit, Hunt and Kintner stick closer to tradition and prefer graphs illustrating imaginary quantities. In pedagogy and literary merit the divergence is a good deal wider. *Fundamentals of Economics* was developed, so its preface explains, in a "laboratory," being the product of successive revisions of the text used in the economics classes of Northwestern University, and thus embodying actual classroom experience. No such claim is made for *Economics: an Introductory Analysis*. But one cannot possibly compare the two without reflecting on the relative good fortune of Professor Samuelson's students. *Fundamentals of Economics* is as useful a cram-book as its rival, and the students using it would probably put up as good a show in the examination rooms as their competitors from the Massachusetts Institute of Technology. But on any but the narrowest and least defensible view of the aims of an academic course this is a shockingly inadequate test. How far, six months or a few years after taking their final examination, will the students' qualifications as citizens, as business men, as trade unionists, as intelligent users of their own resources, be enhanced by the work which they have done? How much better than the uninstructed will they be able to use their reasoning powers in economic matters? How well, assuming that their interests and qualifications lead them that way, will they be equipped to pursue more serious economic studies? It may be cynical to suggest, out of a limited teaching experience, that the long-run residue of most economics courses can be summed up as Demand Curves and All That—as relevant to E.R.P., wage-and-price policy, food subsidies and the capital development programme as 1066 to the issue of Lords Reform; but if there is exaggeration in such a view, there is also substance. For the ordinary, non-specialist student the most valuable long-term product of a course in economics is a habit or attitude of mind, made articulate, preferably, by a solidly grasped minimum of technical knowledge, but essentially independent of technicalities. It was the power of inculcating appropriate mental attitudes which

made Edwin Cannan so incomparable a teacher; it is by the degree to which that power is displayed that an introductory textbook, unlike a more advanced work, should first and foremost be judged. By this criterion Professor Samuelson's book stands head and shoulders above its competitor. *Fundamentals of Economics*, for all its bulk and comprehensiveness, remains in the air—and the air of a rather stuffy classroom, not the intellectual empyrean. Professor Samuelson (besides writing genuine, human English instead of textbookese) uses precept and example to relate his teaching to reality and to keep that relation constantly in the student's mind.

The arrangement of *Economics: an Introductory Analysis* has an appearance of novelty which disappears on a closer view. It is divided into three parts: Basic Economic Concept and National Income, Determination of the National Income and its Fluctuations, and the Composition and Pricing of the National Output—this last, in an apparent reversal of the usual order of things, covering the equilibrium value theory to be found in most people's opening chapters. In fact, however, the real essential hub or core of equilibrium theory has been given in the first couple of dozen pages. Indeed, one may say that anyone who had permanently and thoroughly incorporated into his mental furniture the sense of pages 19–23—those introducing the concept of substitution—would have learned the most valuable lesson that any course of economics can teach. Professor Samuelson's Part III corresponds to the third-year refinements and recapitulations of a full course: a comparison prompting the reflection that it would be a superhuman student who, with no more than two American sematers at his disposal, really covered the ground over which Professor Samuelson leads him, and the more general suspicion that the extremely ambitious scale of American textbooks may possibly have something to do with the low average standard of American academic achievement.

Fundamentals of Economics, ploughing along the more accustomed track, devotes only fifteen pages to those problems of national income, saving and investment, employment and trade cycle theory, which together with the standard exposition of money and credit occupy the whole of Professor Samuelson's Part II, and dismisses Keynesian theory in a sketchy footnote following on a passage, describing the relation between wage rates and employment, which indicates an inadequate understanding of the General Theory. But for its (comparatively few) references to war-time and post-war experience,

legislation and controversy, *Fundamentals of Economics* might well have been written fifteen years ago; but for a perfunctory page and a half on dynamic instability, it might have been written before the Great Slump. The contrast between this timeless classroom atmosphere and the highly contemporary tone of Professor Samuelson's book is matched and reinforced by that between the self-sufficiency of the one and the catholic citation of sources by the other. Each chapter of *Fundamentals of Economics* is followed by a bibliography; each of these bibliographies refers, in various combinations, to parallel chapters in almost exactly similar works—Bye, *Principles of Economics*; Froman, *Principles of Economics*; Garver and Hansen, *Principles of Economics*; Blodgett, *Principles of Economics*, being hardy perennials; Marshall and Taussig making occasional appearances. Of writers on special topics, Mrs. Joan Robinson and Mr. Chamberlain make a lonely appearance on Imperfect Competition; no specialist "further reading" whatever is recommended on income, expenditure and employment; no reference is made to that wealth of Government publications which the British economist envies his American colleagues; no indication is ever given that the student might with advantage look in newspapers and periodicals for practical examples of the topics under discussion. Professor Samuelson gives no formal bibliography, but text and footnotes abound in stimulating references; the reader is given not merely specific clues to follow, but a lively sense of a whole confraternity of economists thrashing out problems, comparing notes, developing and discarding theories—and a healthy impression of the fallibility of experts.

It will have been gathered that *Economics: an Introductory Study*, is a far more up-to-date, intelligently conceived and written, and generally admirable work than *Fundamentals of Economics*. The latter, however, has its sectional advantages. To treat international trade, as does Professor Samuelson, in two widely separated sections—from the money and employment standpoint in Chapter 16, from the point of view of comparative costs and tariffs in Chapters 23 and 24—is surely to invite a mental confusion avoided by the more traditional treatment; particularly as the very *raison d'être* of international trade, and the determination of the prices of internationally traded goods, are thus left to the last. The theoretical bones stand out more clearly in the Umbreit–Hunt–Kintner analysis of wage determination than in Professor Samuelson's corresponding passages—which are characteristically scattered over three widely separated chapters;

and other examples could be cited. *Fundamentals of Economics* has in fact the virtues as well as the vices of an old-fashioned textbook; *Economics: an Introductory Analysis* runs some of the risks of the experimental. Whether these risks are justified by the undoubted gains in realism, in conformity to the shape of economic problems as they present themselves to the ordinary citizen, is a question almost impossible to answer *a priori*. The proper people to answer it would be the students for whom both books were written.

It is on the whole unlikely that either of these books will be much used in Britain. British teachers of economics generally prefer a supplement, rather than a duplicate or substitute, to their courses; the British student, even if he is ready to acquire so exceedingly weighty a standard textbook, is likely to prefer one whose examples and general background are drawn from his own side of the Atlantic, and the same argument applies to the British general reader. But *Economics: an Introductory Analysis* is certainly worth the attention of any teacher in search of new ideas of presentation. How delightful, for instance, to be able to pass on to a wider audience the aphorism in which one of Professor Samuelson's students is reported to have summed up marginal theory: "The theory of economic value is easy to understand if you remember that the tail wags the dog."

HONOR CROOME

Claygate.

Politics and Poverty. By LEWIS C. ORD. (London: The Mayflower Publishing Company, 1948. Pp. 188. 8*s.* 6*d.*)

IT is both fashionable and interesting to enquire why the American standard of living is so much higher than that of Europe. Mr. Ord knows all the answers, and displays them with a certainty not found in more academic studies of this problem. Unfortunately to accept Mr. Ord's analysis involves the acceptance of bad statistics, wild assertions, illogical arguments and contradictory statements.

Mr. Ord's main argument is based on the following figures (p. 131) of changes in real wages since 1814 in the United Kingdom, the United States, France, Germany and Russia:

	1814.	1880.	1914.	1920.	1939.	1947.
American . . .	1	3	6	6½	8	8½
British . . .	1	3	4	3¾	4½	4
French and German .	1	2	2½	2¼	2¾	2¼
Russian . . .	—	—	—	1	2¼	1¾

Although these figures are widely different from any published by

the main authorities in this field, Mr. Ord does not explain how he has obtained them. It is, indeed, difficult to take seriously an argument which is based on the assumption that the level of real wages in the United Kingdom in 1947 was no higher than in 1914. Mr. Ord's use of these figures is most confusing. For although they relate to real wages, he writes as if they can equally well be used as a measure of real income per head of the total population, real income per head of the occupied population or output per head in manufacturing.

Mr. Ord concludes from these figures that the year 1880 was the turning point in British economic history. Before then "British production of real wealth per head of the population was the highest in the world" (p. 38). Since 1880 Britain has been sliding downhill. Mr. Ord is sure that this decline is due to the mistaken economic policy followed by British Governments. Other countries of Europe have followed a similarly disastrous policy. Everything that European Governments have done in the economic field since 1880 has encouraged the growth both in business and Government of a non-productive bureaucracy which has kept down European standards of living. So Mr. Ord concludes that "the Government determines, by its industrial policies, the level of reward that the masses in each country will receive" (p. 94). "Bureaucracy, then scientific management, and lastly the application of the planned economy to the affairs and the industries of the nation were respectively responsible for the starting, continuation, and the intensification of the British industrial decline" (p. 185). The United States, by contrast, has forced business to be efficient by stopping the growth of large units through the operation of the Sherman Act : and has avoided the growth of a bureaucracy by refusing to play with planning. "Had Britain adopted the social and industrial policies that Americans use, there would be nothing to choose between the two countries either in the efficiency of their industries or in the prosperity of their people" (p. 19).

Mr. Ord tries to show that all attempts at Government planning in the past have resulted in slowing down economic progress. In Chapter IV he argues that Government planning in the 1914–18 war was damaging to British industrial efficiency and that this is proved by the fact that real wages in 1919 were lower than in 1914. In Chapter X he argues that the experience of the British and American aircraft industries in the recent war points to the same conclusion. For the performance of the American industry was superior to the British, and while the American was run by

business men, the British was "overplanned into inefficiency" (p. 129) by the Ministry of Aircraft Production.

Now Mr. Ord does not argue that Government or large-scale business planning retards industrial progress because it discourages initiative or leads to wasteful and unco-ordinated output. He rests his whole case on the growth of a non-productive bureaucracy, which contributes nothing to material output, but has to be given a share of the product. According to Mr. Ord it is this increase in the ratio of non-productive to productive workers in Europe which accounts for the big difference in efficiency compared with the United States. Besides this, differences in capital equipment, national resources and methods of production are of minor significance. "With tools, methods and pace equal, the Americans would still have been twice as well off as the Germans in 1938 because they would have had twice as large a proportion of their population doing productive work" (p. 89). But what has to be explained is the large difference in *output per operative in manufacturing* between Europe and the United States, and Mr. Ord's argument about the ratio of productive to non-productive workers in the economy as a whole is irrelevant to this issue.

When Mr. Ord is not riding his non-productive hobby horse he has some interesting things to say. The discussion of the experience of American firms setting up branch factories in Europe is most instructive. The American firms sent some of their best managers to these factories and often equipped them with exactly the same tools as the parent factories in the United States. Yet their output was much below American levels of efficiency. "The working pace of their productive workers and restrictive practices of their trade unions remained unalterably at the level usual in the country concerned. The practices of management in detail and the number of non-producers required to run a business of a given size stayed at European, rather than at American levels" (p. 69). If Mr. Ord had dealt with the experience of these firms in more detail instead of roaming wildly over the whole field of economic and industrial policy, this book would have been much more useful.

Mr. Ord develops his argument in a breezy style and in order to retain his reader's interest intersperses his economic and political analysis with stories of his experience as an industrial consultant and adviser to Governments. We are told how he made businesses pay when all others had given them up as hopeless; how he fulfilled contracts on time when others thought that

impossible; how he drew up an aircraft programme for the Air Ministry which was exceeded by an arrow margin; how he forecast correctly the peak level of American aircraft output in the recent war; and how he managed " when short of time . . . to analyse a business, assess the improvement that was possible, and outline the policy necessary to achieve the results, all within a week or ten days " (p. 167). Clearly industrial consultants, if they are as good as Mr. Ord, should not be included in the category of non-productive workers.

E. DEVONS

University of Manchester.

Modern Business: An Introduction to Principles and Problems. By LLOYD V. DOUGLAS, ROBERT O. SKAR and RAY G. PRICE. (New York and London: McGraw-Hill, 1948. Pp. x + 417. 21*s.*)

Introduction tq Business. By EDWIN H. SPENGLER and JACOB KLEIN. Third Edition. (New York and London: McGraw-Hill, 1948. Pp. xiii + 671. 27*s.*)

THE first of these two textbooks is addressed to general as well as business students and is intended to serve as the basis of a school course.

The book begins with a discussion of the nature of business and its general machinery such as communications, money and credit. It goes on to examine the problems of starting a business such as organisation, finance, location, the problems of manufacture and of marketing. It then discusses the division of the proceeds of business, the consumer's problems in buying goods and services and the provision of certain services through the State. The concluding section contains chapters on the business-cycle, problems of the capitalist system such as tendencies to monopoly, employer–employee relationships and business ethics. The book is, of course, written against the American legal and institutional background. Although descriptive rather than analytical in approach, *Modern Business* is written with an underlying awareness of economic forces and problems which gives the text coherence and should arouse and guide the interest of the reader. In particular, the questions, case problems and projects at the end of each chapter are designed to encourage the student to find things out for himself.

The least satisfactory parts of the book are those where the

authors wander away from business and into more general fields. The distribution of the national income cannot satisfactorily be discussed in a chapter or two in a book of this kind. Some of the statements are platitudes; for example, "It is not our purpose to make any dogmatic statement as to whether profits are too high, or too low or just right. That may be a matter of opinion even after the facts are revealed" (p. 300). Others are almost certainly wrong; for example, ". . . the adequacy of wages, the fairness of prices charged customers, the question of reasonable profits to the proprietors, and efficiency of operation may be largely determined by a study of these [business profit and loss] statements" (p. 299).

There are one or two other matters which the authors might consider for the next edition. One cannot say that "it would not be feasible to have two or more competing companies" (p. 375) running a city transport system, because it has been done and, some would say, efficiently done. The recommendations of the Twentieth Century Fund Committee on Distribution (p. 209) are interesting, but without elaboration some of them will be unintelligible to the student of this book. In dealing with the need for accounting and statistics a more cautious note should be struck. The statement that "even in a small business, personal observation is largely ineffectual and wholly inadequate" (p. 162) is an exaggeration.

In general, this book is sound and well written, but in the next edition it would be better to limit the field and to use the space thus saved to elaborate some of the subjects, for example, in the section on manufacture, which have been dealt with too briefly.

Introduction to Business, of which this is the third edition, is intended to serve rather a different purpose. Its aim is to provide a "realistic exposition of American industry, its organisation, operation and management" as an introduction to "advanced courses in statistics, accounting, management, finance and other offerings in economics." The scope will be seen from the headings of the nine sections, which are as follows: Business Organisation, Managerial Control, Industrial Management, Labor Relations, Marketing Methods, Pricing Problems, Financing Methods, Problems in Taxation and Insurance, Industrial and Economic Planning. Each of the twenty-nine chapters ends with a list of questions and problems and there is a list of references for further reading and a catalogue of films and other visual aids for classroom use. The book is packed with illustrative material, and

the whole is a very readable description of American business practice and problems.

Some teachers of "tool" subjects such as accounting and statistics would question whether much is to be gained from the summary reference to their subjects which is all that is possible in a book of this kind. However, brief general surveys of the tools of business in relation to the problems they are designed to solve, written as part of an introductory review of the whole field, may help to make subsequent specialised study more intelligible. The more important question is whether elaborate description gives the best help to a student beginning the serious study of business or whether greater emphasis should be put on analysis than is the case in the book under review.

It is where economic analysis would be most helpful that this book is at its weakest. For example, the authors, in reference to the social framework of business, make the following statements. "Service instead of selfishness, co-operation instead of ruthless competition, self-government rather than strict social control—these are some of the characteristics found in the new business procedure. Individualistic concepts are gradually being abandoned, and in their place are being introduced the motives of planning, co-operation and the advancement of the general welfare" (p. 4). "The desirability of perfect co-ordination and stabilisation of economic processes is unquestioned" (p. 502). Excellent for an after-lunch speech at a trade-association meeting, but valueless from the point of view of making students think.

On the economics of the firm there is also some pretty loose writing. For example, on p. 468 we are told that it will pay to instal high-speed wrapping machinery only if it can be kept continuously fed. In place of this arbitrary statement, which may in some cases be wrong, the student could be given quite simply the economics of the situation, which would then stand him in good stead in considering similar problems. On p. 439 the authors say ". . . it is in the interest of the producing organisation to obtain as great a spread as possible between costs and selling prices—if not in individual transactions, at least in the aggregate of its business." This might make it appear as if the authors considered it more important to maximise unit profit than aggregate profit. On the same page the following statement appears. "The business executive is primarily interested in seeing the goods and services of his firm sold in sufficient volume and at profitable prices." What is a "sufficient" volume? Is it really so difficult to express simply the notion of maximising net

revenue and to show the student which are the important variables? A very good discussion of the problem of site-finding is prefaced by the remark " The solution, superficially, is to select that site which will yield the greatest revenues over a period of time at the least cost. But to the industrial manager that is no answer at all—it is merely a statement of the problem " (p. 185). True enough, but if the problem is to be expressed in general terms it could be done more accurately. One does not necessarily seek out locations which have the lowest cost and choose the one among these which has the highest revenue-earning power—which is one of the meanings that could be given to this statement. If revenue is influenced by siting it may pay to choose an altogether more costly site. The authors are, of course, perfectly well aware of this and a little care would enable them to express the generalisation and discuss it in such a way as to help the student. What is required is that the book shall be revised in the light of economic analysis in such a way that the reader will be encouraged and assisted to start thinking for himself. If this were done a useful descriptive account of business would be strengthened into a good textbook.

RONALD S. EDWARDS

London School of Economics.

Trade of Nations. By MICHAEL A. HEILPERIN. (London and New York: Longmans, 1948. Pp. xix + 234 + vii. 19*s.* 6*d.*)
The Awakening. By L. S. AMERY. (London: Macdonald, 1948. Pp. xvii + 272. 8*s.* 6*d.*)

MR. HEILPERIN is as thorough-going a liberal (in the British sense) as one is likely to find. He begins with a lucid restatement of the case for international specialisation, the utmost freedom of international investment and an international monetary system with many of the characteristics of the gold standard. In monetary matters he would not, indeed, go as far as the constitution of the international monetary fund, since he is unwilling to tolerate exchange control even for regulating short-term capital movements or for rationing scarce currencies, and would prefer to see formulated some more precise rules of the game " comparable to the unwritten but rather clear rules of the gold standard." He then goes on to attack economic nationalism in all its forms. Few economists will fail to enjoy the results of his researches into what he calls " old-fashioned protectionism " as manifested mainly in

the evidence brought before the House of Representatives Committee on the extension of the Reciprocal Trade Agreements Acts.

In his strictures on the brands of economic nationalism which he associates with the pursuit of full-employment policy, however, fewer readers are likely to be in sympathy with him. It is unfortunate that he adopts a somewhat niggling attitude towards the term full employment itself, ignoring the fact that what is really under discussion is what the British White Paper on employment policy calls simply but adequately a *high and steady* level of employment. It is unfortunate, too, that he is content here with such platitudinous statements as the following (p. 100), "aside from exceptionally serious depression the real choice does not lie, however, between employment at any cost on the one hand and unemployment on the other. Actually it lies between the various ways of securing employment and between the various ways that the economic system can be made to function." The choice, if it is a choice, between more employment at any price and rather less employment distributed in a way more consistent with the principle of comparative advantage, has been discussed *ad nauseam.* It is to be hoped that those who deal with it in future will discuss more fully how far the choice is a real one, and this discussion surely must be in quantitative terms.

Mr. Heilperin's approach throughout this part of his subject is characterised by what one suspects is a failure to understand the doctrine of the foreign-trade multiplier and a failure equally to appreciate the economic necessities of a world which is so far from equilibrium that a complete balancing of payments between the two hemispheres brought about by the price mechanism would involve starvation and stagnation in one of them. In a world of this kind, reservations with regard to non-discrimination, such as those contained in the Havana Charter, have virtues which Mr. Heilperin apparently fails to see.

In the third part of his book, Mr. Heilperin looks rather further into the relations between international trade and national prosperity. The " chicken and egg " argument, however, about which of the two comes first, is likely to be even more troublesome to the reader than to the author, who gives little convincing ground for the priority which he accords to foreign trade. It is, in fact, not very difficult to state the relations between the two. World employment depends on world investment. For any given part of the world, the relative importance of internal investment and the foreign balance as determinants of internal prosperity

should be clear enough, but no comparison to the relative sizes or variabilities of these two determinants for different countries ever enters Mr. Heilperin's discussion. He concludes, agreeably enough, that an international anti-depression policy is as necessary for the world as an international policy for the freeing of the channels of trade, but his remark (p. 130), that "domestic expenditure cannot take the place of foreigners' expenditure because the former would be directed towards other goods and services than the latter," is only very partially true, and enables him to dismiss the essential truth in the dictum that national prosperity (meaning an appropriate internal investment policy) is an international duty. These characteristics of Mr. Heilperin's argument are part, indeed, of what appears to be a general failure to distinguish between remedies for unemployment which have "beggar my neighbour" effects and those which have not.

There is no space here to comment on the author's analysis of inter-war economic policies, except to say that this analysis leads him to support Professor Viner's suggestion that a world investment organisation, with vastly larger resources than the present international bank, is a means of stabilising and adjusting the general and regional levels of economic activity.

His final section on the United States and the world economy follows fairly familiar lines, but nothing is to be gained by his attempt to exaggerate the United States' dependence on the state of external trade. American responsibility for the prosperity of the rest of the world will have to be founded in the long run on an appreciation of the fact that most economies are vastly more dependent on international conditions than is the United States.

Mr. Amery cannot be said to correct the bias which has been indicated in Mr. Heilperin's book except in one or two particulars. Mr. Heilperin's advocacy of free trade ignores most notably the force and wide application of the infant-industry argument. Mr. Amery exalts this argument into a general principle, applying even to a country like the United Kingdom, which is already dependent on manufactured exports and whose industries are, alas, all too far from their infancy. It is, indeed, hard to see how so firm a supporter of List can reconcile that support with an advocacy of free (or relatively free) trade within an area like the British Commonwealth, which comprises communities at every stage of economic development. The infant-industry argument surely suggests that the areas which might most fruitfully form customs unions are areas at similar (preferably early) stages of growth. It would be interesting, too, if Mr. Amery had compared the mone-

tary characteristics of the Bretton Woods agreement, which is his *bête noire*, and the arrangements constituting the sterling area, for which he has so high a regard. The reader may have difficulty in finding such differences between them as would justify the extreme diversity of his attitudes in regard to them.

Mr. Amery's emphasis on the instability of the American economic system may also, perhaps, be regarded as providing a corrective to a second bias in Mr. Heilperin's book. Whereas Mr. Heilperin, like so many American observers of the post-war scene, puts on sack-cloth and ashes, Mr. Amery refuses to take these symbols of repentance seriously and insists on projecting past experience of American behaviour into the future. On the other hand most economists are not likely to regard Mr. Amery's pugnacious propensity to favour every kind of positive weapon of commercial policy as a proper corrective of the liberal bias in favour of freedom of trade. The world must surely aim at some international *modus vivendi* in economic matters; to advocate straightforward aggression in commercial policy without even mentioning the inevitability of retaliation can hardly count as advocacy of an alternative of the free-trade system or any other. It is, in fact, an advocacy of chaos. The reader may, moreover, be inclined to ask whether Mr. Amery has considered which countries would be likely to win in a world of unrestricted economic warfare. Those which are most dependent on external trade? Or those which are less so? It is relevant to notice that even the British Empire and Commonwealth taken as a whole is still twice as dependent on trade with areas outside itself as is the United States of America. To change this may be an object of Mr. Amery's policy, but it would take a great deal of changing, and the attempt would impose an enormous strain on the bonds that exist between the British countries.

A. J. Brown

University of Leeds.

American Banking System. By R. S. Sayers. (Oxford: Clarendon Press, 1948. Pp. v + 130. 7*s.* 6*d.*)

This excellent little book which grew out of lectures delivered at University College, London, in 1947 fulfils its purpose admirably. English students of American banking may be referred to a very large number of bulky and elaborate volumes by American authors, but they will not find to their hand any convenient and up-to-date account which combines clarity with brevity and which

leaves them with an adequate picture of the whole system. Professor J. H. Jones's *The Federal Reserve System* did something to meet this need; but many changes in technique and of banking policy have occurred since 1927, when the latter volume was published. Professor Sayers's present volume is modestly described as a " general and up-to-date sketch in the compass of an evening's reading." The intelligent student who has spent one such evening will, however, profit from a slower and more careful reading, and if his interest leads him further he will be less at sea when he tackles the larger and more detailed American studies of which there are plenty.

About one-half of the volume is generally descriptive, and covers a general view of the American banking structure, the structure of the commercial banks and the constitution and government of the Federal Reserve System. The second half, which deals with the control of the quantity and price of credit and qualitative control, contains the more important part of the book, which is rounded off with a chapter on some reflections by the author. Much has happened since the Federal Reserve System was created to provide the country with an elastic currency and to meet the seasonal and temporary requirements of the member banks. The fact that the new system was immediately made subject to war conditions brought it more quickly to recognise its larger responsibilities in the formulation of national credit policies with a wider economic significance. Professor Sayers rightly remarks that with this broadening of the purposes of the system it becomes less easy to disentangle the various techniques which are employed to influence the general credit position of the country.

Of particular interest to English students perhaps is the provision made for the variation of reserve ratios because while State legislation still looks on cash reserves from the angle of convertibility, Federal banking law has come to regard reserve ratios as an instrument of credit control. The Thomas Amendment which made this possible in 1933 was a temporary expedient, but two years later the powers of the Board of Governors in this respect were made permanent, provided the power was used " to prevent injurious credit expansion or contraction " which, as Professor Sayers remarks, is " a phrase wide enough to content any central banker."

The second feature of particular interest was the development of the stable-bond-market policy which, though influenced in some measure by developments in economic theory on the relation

between interest rates and economic activity, was induced in the late 'thirties by a technical situation bound up with the system of varying reserve ratios. Large sales of bonds by banks which had to hold larger legal reserves threatened to disturb the bond market unduly, and to reduce this disturbance the System found itself obliged to indulge in some open-market purchasing of securities. But during the war years considerations of war finance led to a development of what had been a temporary expedient into a more definite policy. In 1942 the provision in the original Federal Reserve Act which prohibited the Reserve Banks from making direct purchases of government securities from the U.S. Treasury was removed, first as a temporary expedient but later as a permanent change. The original prohibition had been introduced in order to prevent the Federal Government from using the System as an instrument of inflationary finance. It is true that a limit of $5,000 million was placed upon the amount of government securities which might be directly purchased by the Reserve Banks and held at any one time, but the question remains, and it is one with which Professor Sayers could hardly deal within the limits of the present volume, whether the removal of the original restriction has not been carried too far and whether new or alternative safeguards would not now be warranted.

D. T. JACK

King's College,
Newcastle upon Tyne.

Bank for International Settlements, Eighteenth Annual Report. (Basle : Bank for International Settlements, 1948. Pp. 174.)

THE amount of statistical material now available and the complexity of monetary problems in Europe render the eighteenth Annual Report of the Bank for International Settlements an exercise in compression. Although the task is done with the skill and clarity now established as traditional in these reports, this one remains stiff reading for those not already familiar with the subject. It deserves, however, to be read by a wider public, not only as a digest of statistics, but also as a guide to policy. For this latter purpose some expansion of the general comments and conclusions would be most welcome. These are pungent but tantalisingly brief.

To achieve such expansion without producing an overgrown volume it is suggested that this report be confined more strictly to monetary affairs. Sections of the present report, such as much of

Chapter 2, are merely a summary of the report published by the United Nations Economic Commission for Europe entitled *A Survey of the Economic Situation and Prospects of Europe.* As it seems probable that such surveys will continue to be produced there appears to be a case for division of labour.

A further reform of the structure of this report may be suggested. The Budget Policies of many countries are reviewed in Chapter 3, and Credit Policies in Chapter 8. Although it is illuminating for some purposes to be able to make international comparisons of each of these policies separately, they are now so interdependent that it would be preferable to consider them together. In order to obtain a clear picture of the monetary policy of any one country under the present arrangement it is necessary to read the relevant sections in both chapters. Nor is the result entirely satisfactory in all cases even when this is done.

The fact that Belgian policy has been distinctly different from that of many other countries of Western Europe, such as Britain and the Netherlands, is briefly noted (pp. 47, 57 and 131). But no attempt is made to analyse the extent to which credit control, including a rise in interest rates, and strict regulation of commercial banks to prevent over-expansion of loans, has proved an effective substitute for the rigorous physical controls and heavy taxation needed to restrain inflation in countries more faithful to "cheap money." One indication is given (p. 99) by the steady appreciation of the Belgian franc in the Swiss bank-note market, but such an index must obviously be treated with reserve. The choice of policies illustrated by Belgium is one of major importance. References to it are numerous throughout the report: the slight revulsion from the extremes of "cheap money" in many countries (p. 123 *et seq.*); the dangers of reliance on physical controls in such countries as France where the administrative machine cannot stand the strain (p. 68); the damaging effects of detailed controls in slowing down international trade where "dispatch is the soul of business" (p. 87); the problems of incentives imposed by reliance on large budget surpluses and high rates of taxation (p. 58). These comments are pertinent, but need co-ordination.

The description of the financial condition of Western Germany is inadequate. This is the more surprising in view of the emphasis rightly placed on the German position in the United Nations "Survey" quoted above. It is to be hoped that this deficiency will be made good next year when it will be possible to include a description of the currency reform.

Certain minor points must be mentioned briefly. Although

such a report as this must rely largely on official statistics, it would be helpful if in future reference were made to such informed criticism as the calculations by Mr. Tress in the *London and Cambridge Economic Service Bulletin* of May 1948. These include a revision of the official figure of dis-saving by public authorities in Britain in 1947 from £135 million reproduced in this report (p. 54) to £336 million.

The British objections to the multiple currency system introduced by France during January 1948 (pp. 91–93) deserve more explanation, as certain of the fears then expressed were in fact realised ; for example, French purchases of goods in the sterling area for resale to the dollar area. For it seems likely that such incidental disadvantages to others will always tend to be under-estimated by the originators of such schemes.

R. F. HENDERSON

Corpus Christi College,
Cambridge.

The Australian Coal Industry. By A. G. L. SHAW and G. R. BRUNS. (Melbourne University Press (Cambridge University Press), 1947. Pp. x + 197. 17*s.* 6*d.*)

THIS is an extremely interesting book which in many respects brings up to date Professor Mauldon's well-known book on *The Economics of Australian Coal.* Its scope may be briefly indicated by the chapter headings : Introduction ; The Market for Australian Coal ; The Production of Coal in New South Wales ; Coal Production in Other States ; Wages in the Coal Mining Industry ; Health and Safety of Miners ; Industrial Strife ; The Future of the Industry.

The authors are not optimistic about the future for Australian coal. They argue that both the supply of and the demand for coal are insensitive to price variations. As a result, competitive adjustment to changing market conditions is extremely painful, falling demand being met by fierce price competition in an effort to maintain output, this leading in turn to pressure on wages and industrial strife. During the recent war demand has risen and, in spite of some expansion in output above pre-war levels, the trend has been downwards since 1942, so that coal is still in short supply. It is suggested that, as conditions return to normal, the long-term trend of demand will continue downward as before the war, with resulting excess capacity, low prices, intermittent employment, pressure on wages and industrial unrest. This emphasises the

urgent need for consideration of the future organisation of the industry and the pros and cons of alternative forms of organisation are discussed at some length.

This thread of argument gives unity to the treatment and makes more attractive what might easily have become a very dull descriptive study. But it is not maintained consistently throughout, and occasionally it is difficult to agree with the conclusions drawn from the evidence presented. Thus it is stated that the world demand for coal has shown a tendency to fall since 1910, whereas the evidence shows it to have been increasing slightly, and in reaching their depressing conclusions about future demand for Australian coal the authors appear to have considerably underrated the possible effects of further industrialisation in Australia and the Far East. Moreover, there is a great deal of evidence to suggest that competitive price cutting before the war was not without effect in maintaining output. If this was so, cartelisation (towards which the authors show a certain tenderness) would have had the effect of exaggerating output fluctuations.

The book is also somewhat marred by a certain looseness of argument. The distinction between the effect on demand of a change in price in a given market situation and the effect of a change in the market situation itself is not always clearly made. Partly as a result of this and partly as a result of an effort to maintain a consistent line of argument in spite of inconvenient facts the writing is sometimes confused. Examples of this occur on page 6, where figures of consumption per head are introduced in a discussion of aggregate demand, and on page 44, where the following sentence appears: "Coal production has shown a long term tendency to decline—partially concealed by the expansion of industrial activity—and this was only partly arrested between 1932 and 1939 when low prices still depressed the industry."

The book, then, is not a particularly careful or closely reasoned piece of work. There are also some surprising gaps which may, however, be explained by the fact that the information is not available. We are told very little about available reserves and the probable cost of their exploitation, there is no analysis of the wages structure, and the information provided on costs, prices and proceeds is very scrappy. Further treatment under these heads would have permitted closer analysis of the future prospects of the industry.

Some points are of particular interest to English readers anxious to seize on points of comparison and contrast between the Australian and British coal industries. Output per man-day in the

most important coalfield (that of New South Wales) reached 3·5 tons in 1938 (having increased by 42% between 1927 and 1938); also the scope for further mechanisation would appear to be considerable. Future cost and price reduction may therefore considerably sustain the demand for coal, and this makes all the more surprising the authors' gloomy view of the future and their leaning towards some form of cartelisation. Equally interesting is the discussion of industrial strife in the industry. In Australia, as in Great Britain and the United States, coal accounts for the greater part of industrial unrest—a fact which suggests that something inherent in the nature of the industry is responsible. In this connection much importance is attached to past traditions of mutual hostility and ill-will, but there is a good deal of evidence in the book to support the present writers' contention that variability of natural conditions, producing a complex and anomalous wages structure certain to be a fruitful source of conflict, is mainly responsible.

The book bears few of the usual marks of joint authorship and the authors are to be commended on having produced a book which, in spite of its faults, makes enjoyable reading. It should be read by every student of mining economics.

A. BEACHAM

Cardiff.

The New India. By Sir ATUL CHANDRA CHATTERJEE. (London and Bombay: George Allen & Unwin, 1948. Pp. 195. 8*s.* 6*d.*)

THE *Economist* has recently said that " It is not easy in this country to make the mental re-adjustment required to think of India as an independent power playing a leading rôle in world affairs " and that " The British built in India more solidly than they knew." Sir Atul Chatterjee's admirably concise account of the Indian scene on the eve of Partition will help the reader to make this readjustment and points to a number of directions in which, under British Rule, sound construction was undertaken.

The New India looks more to the past than to the future, and is concerned more with social and economic developments than with constitutional details. Its main object is to give those who have not hitherto followed closely the course of events in India some idea of the main factors which, under British Rule, led to the demand for, and power to achieve independence, and of the social background which will necessarily control the trend and pace of constitutional and economic development in the future. Without

detriment to his vivid and easy style, the author has contrived to summarise in masterly fashion his views on the fundamental factors and influences that have moulded the recent social development of his complex and heterogeneous country.

The reader must not, however, expect an analysis of the problems and results of Partition, or recommendations for the solution of these problems. Sir Atul Chatterjee adumbrates no "Plan." It is clear that the bulk of the book was written before August 15, 1947, and it is unfortunate (for author and reader alike) that it was not published then, rather than at a time when many readers will hope to find clearer guidance than can be obtained from the Press on such matters as the rights and wrongs of the Kashmir and Hyderabad disputes, and the probable future relations between India and Pakistan. The book, therefore, is of historical rather than of topical interest, but—accepting this limitation—I know of no other volume of comparable size which gets the Indian Problem in better perspective.

VERA ANSTEY

London School of Economics.

From Tolpuddle to T.U.C. By G. E. FUSSELL. (Slough: Windsor Press, 1948. Pp. 148. 6*s*. 6*d*.)

THIS book tells the story of the long struggle of the farm-workers from the riots and transportations and the seven-shillings-a-week wage of 1830 to the well-established Unions and the Statutory Minimum Wage of the present day. Many factors played their part in the drama—the Corn Laws, agricultural depression, the franchise, the coming of social legislation and the misery and discontent of the workers. These last found expression in strikes and disorders and in the formation of Unions which rose and fell as conditions for their success were favourable or impossible.

The author is well qualified for his task. As an historian he has to his credit much research into the history of English agriculture, as is shown by the list of his contributions to the subject printed at the end of the book. He enriches his pages with many records of incidents in the struggle, taken from the writings of such leaders as Joseph Arch and George Edwards and of Lord Snell. And in truth many of their experiences were bitter in the extreme. It is over forty years since the writer of this review heard George Edwards tell from a public platform the story of how his father, a farm labourer, returning home after his day's work was stopped by a policeman and compelled to disclose the contents

of the bag that he was carrying. He was found to be bringing home five turnips to his starving family. He was arrested and sentenced to fourteen days' hard labour. As a result he lost his work, and his family had to spend the whole winter in the workhouse. This was in 1854 when wages were eight shillings a week.

The impression made on the mind of the reader of this book is of the extreme difficulty of organising the workers on scattered farms where the relations with the employers, some of whom were harsh and some charitable, were personal and even feudal. Organisations sprang up, but only to die away again under fear or disappointment or prolonged unemployment. After the tragedy of the Tolpuddle Martyrs in 1834, there was no further attempt at Trade Unionism for thirty-five years, though the bedrock of misery was reached in the late forties. Then in the seventies came the amazing success of Joseph Arch, who enrolled 70,000 members in his National Union while the total number in the country, including the smaller Unions, was estimated at 150,000. The triumph was short-lived and thirty years of depression followed. In this century the Workers Union and the National Union of Agricultural Labourers built up their membership and were well established when war came in 1914.

Mr. Fussell's history brings out very clearly the fact which George Edwards recognised in his day: that organisation alone without legislative backing would never secure or maintain a reasonable wage. The difficulties were too great. Attempts had been made in some quarters to obtain, through the Unions, allotments or small holdings for their members; others started Sick Clubs as a further inducement to the men to join and to keep in their Union. Both these attempts failed through lack of funds. The small subscriptions that farm-workers were able to pay were quite inadequate to finance such schemes. But apart from their task of pressing for higher wages the Unions played their part in helping to make the farm-worker politically conscious, encouraging him to use the franchise when it came in 1884, and thus helping to bring to birth the County, District and Parish Councils which brought local democracy to the countryside. And later the Education Act of 1870 began to have its effect, while Old Age Pensions and Health Insurance followed in due course.

But the great landmark as far as the wages of the farm-worker are concerned was the Corn Production Act of 1916. This secured for him a rate of wages controlled by the Agricultural Wages Board. Except for a brief interval between 1920 and 1924, statutory wages had come to stay.

It is good that this book has been written, so as to place on record a vitally important chapter in English history from which many lessons may be learnt, and that in such a way as to be attractive to the general reader. For the help of the student a bibliography, together with critical studies of source books covering seven pages, closes the volume.

CLARA D. RACKHAM

Cambridge.

The Social Background of a Plan: A Study of Middlesbrough. Edited by RUTH GLASS for the Association for Planning and Regional Reconstruction. (London: Routledge and Kegan Paul, 1948. Pp. xiv + 268. 42*s.*)

THIS book is a nightmare: on reading it one finds oneself back in the atmosphere of Edwin Chadwick's *Sanitary Condition of the Labouring Population* or of Engels's *Condition of the Working Classes*—both published more than a century ago. Not that Mrs. Glass and her co-authors have set out deliberately to paint horrors: by no means. They were set the task of making a social survey as part of the necessary basis for a reconstruction plan, and they went to work in a spirit of scientific investigation and kept to that spirit as far as their somewhat meagre resources allowed. The effect is all the more striking; and it makes one wonder of how many other industrial towns built in the nineteenth century a similar picture would emerge if the same methods were applied. In Middlesbrough, at any rate, what we are given is a record of formless growth which has produced a great urban community lacking in almost every essential for the living of the good life.

Middlesbrough is not an old town swelled to hugeness, but a creation of nineteenth-century industrialism. It grew up along its water-front; and as its size increased the houses spread out southwards, and, to east and west, smaller neighbouring centres were gradually engulfed. The growth was entirely unplanned; and even when, in the present century, housing estates were developed on the outskirts, nobody thought of equipping them with any amenities or even, till long after the need had arisen, with schools and shops. Meanwhile, as the more prosperous inhabitants moved out, the old centre of the town, except for a small area devoted to offices, main shops and amenities near the railway station, festered into slums. No one thought of improving the schools in these central districts: so that now they consist of grossly obsolete buildings, hemmed in from light and air, with no

play room, no amenities and no access to open fields, which lie much too far away for more than an occasional visit. Out of twenty-eight elementary schools now in use, seven were opened before 1875, another seven before 1900 and five more before 1914; and in most cases nothing, or next to nothing, has been done—or indeed can be done—to improve them. Shops, too, are mostly obsolete and wrongly placed in relation to the existing distribution of population: so that Middlesbrough has too few shops in all, and yet has a very high proportion of "empties"—mostly in an advanced state of decay. There is a gross deficiency of open spaces; and what there are, by being out of reach, fail to serve those who need them most. There are a few areas where relatively well-to-do people contrive to live in relatively pleasant surroundings; but for most of the population the town appears to have no redeeming merit—except of course that which belongs to the worst of places by virtue of being "home."

Mrs. Glass in this book is only summarising the large mass of evidence collected by the small team of which she was in charge. She had, in many cases, to use somewhat sketchy methods of investigation because time and man-power were short. But the results are so striking that they could hardly be modified appreciably by more thorough statistical study. Even the widest allowance for possible error leaves the indictment black enough. To the main study Mr. A. E. Smailes provides a short but excellent background account of the geographical and economic factors, including a brief summary of the town's industrial history since Bolchow and Vaughan set up their first works in 1840. This survey brings out very clearly the excessive dependence of the area on the steel industry (especially Dorman, Long), though the position has been modified by the growth of the great I.C.I. works at Billingham across the river (and outside the area covered by Mrs. Glass's study). Inserted at the back of the volume is a useful series of folding maps—useful both for the information they convey and for the light they throw on the right use of mapping in social survey work of this non-exhaustive type. Altogether, Mrs. Glass is to be congratulated as much as Middlesbrough is to be deplored—and pitied for the immensity of the problems its civic authorities must face in order to make their town comply even minimally with the basic conditions of decent living as they are now conceived.

G. D. H. Cole

All Souls College,
Oxford.

The Renaissance of the Individual. By KURT LACHMANN. (London: Charles Skilton Ltd., 1947. Pp. xvi + 143. 7*s.* 6*d.*)

THIS is a small book on a great subject—nothing less than the salvation of mankind from total slavery at the hands of organised power. Such a theme is suitable either to an essay or a treatise. The one might state the problem with the swift effectiveness of Thomas Carlyle's essay, *Signs of the Times* (1829). The other would elaborate it with the analytical power of Marx's *Kapital.* Dr. Lachmann's book falls betwixt and between. It contains less than one hundred and fifty pages, and it is divided into short sections and sub-sections under large headings (GLOBAL ECONOMY gets six pages). Evidently such a work can be little more than a plea, and pleas are not exactly what we want on a subject of this magnitude and urgency. For one thing, we have had so many of them this century that they have acquired the habit of sliding off the public's intelligence like water off a duck's back. It is to be feared that many people (most of all, the people who ought to read it) will shy away from Dr. Lachmann's little book because it is just a little too long and too solemn to be read on a railway journey, while the few who have really thought about the subject will probably decide that they have read it all before, more subtly substantiated because at greater length, in Duguit, Berdyaev, Mumford, Wells and Streit. In fact, it is a little difficult to see for whom a book like this is written.

This is a pity, because Dr. Lachmann's intentions are admirable, his thesis is humane and his ideals are noble. The point he wishes to make is one that no lover of his kind would wish to controvert. It is, that the ultimate value, to which all other values should be subordinated, is the personality of the individual. The rescue and liberation of individual personality, he believes, is to be achieved only at the hands of a Universal Law, valid for all, to which appeal may be made by the afflicted subjects of state sovereignty. Dr. Lachmann believes that the basis for such a Universal Law already exists in the world. He is, indeed, really appealing to something very old in the history of Western man—Natural Law. Unlike many exponents of this perennial idea, however, he does not leave his readers with any vague notions as to what this law is. Perhaps the greatest virtue of his book arises from the fact that he is, above all things, a working jurist and not simply a moral philosopher. He is able to show, without straining our credulity, that a Supreme Court of International Justice has

already a proto-history. Moreover, he does not isolate the juridical problem from the problems of world economics. By linking his juridical analysis and proposals to the rest of life as it is lived, he has lifted his essay out of the ruck of optimistic blue-prints supplied by Federal Union enthusiasts. He makes plain what are the realities of our present situation, where the difficulties lie, as well as what are the alternatives if his thesis is ignored.

Only two criticisms will occur to the sympathetic reader. The first is a criticism of the structure of the book. While it is refreshing to read a book in which the juridical and political dog wags the economic tail, I think Dr. Lachmann's most impressive essay on the primacy of the juridical function of government would have been more effectively placed after, and not before, the section on the moral aspects of economic justice. The second is a criticism of what I think is an unjustified distinction. Dr. Lachmann makes a brave attempt to show that state-socialism is not state-capitalism. One may agree that the distinction ought to exist, but the trouble is that in fact it doesn't. State-socialism as it is practised has given a greater fillip than anything else to that very doctrine of Austinian state-sovereignty which Dr. Lachmann sees as the enemy of the individual. The fact that he does not, or will not, see this, weakens his positive proposals at the most crucial point of his exposition.

R. J. WHITE

Downing College,
Cambridge.

Reason and Unreason in Society. Essays in Sociology and Social Philosophy. By MORRIS GINSBERG. (London : London School of Economics and Political Science, and Longmans Green, 1947. Pp. 327. 15*s*.)

PROFESSOR GINSBERG is one of those rare sociologists who never forget that the mind which studies mind is part of its own subject-matter. This watchful habit gives to his work a tentative, even hesitant, manner. His every conclusion is attended with the qualifications proper to a hypothesis. The argument is never closed, only postponed to a further stage of discourse in the light of new facts or a more qualitative examination of old ones. The method derives, of course, from the incremental method and the unflinching empiricism of modern science. Its application to

the study of mind owes most to Jeremy Bentham, J. S. Mill, Graham Wallas and L. T. Hobhouse. With all their rejection of the intellectualist fallacy and their recognition of the forces of unreason in the human make-up, the Fabian founders of the London School of Economics are essentially the spiritual children of the Benthamites. Professor Ginsberg's book of collected papers is published by the London School of Economics and Political Science : the caution (on page v) that the author alone is responsible for the views expressed in it was scarcely necessary. We are, from beginning to end, in a world of conscientious objectivity, a world where a creative principle is suspect as evidence of a *parti pris.*

All this is admirable when, as in the first part of his book, Professor Ginsberg is expounding the recent history of sociological method : here is a most illuminating essay on L. T. Hobhouse, and an impressive argument for the linking of social science with social philosophy in university education. In Part II, however, the essays are concerned directly or indirectly with the problem of national character, and it is here that one begins to wonder whether science, any more than patriotism, is enough. In Part III, which is mainly concerned with ethics, the reader is increasingly made to feel the inadequacy of empirical science to throw light upon the mainsprings of morality by a rather painful absence of conclusions. Professor Ginsberg can show how unfortunate it is that international law and morality are conceived upon an individualistic basis, but he can only end his essay by saying that international co-operation would be brought about if nations were less individualistic—*i.e.*, if there were more agreement to co-operate internationally. Similarly, when at the end of a wise essay on Moral Progress, he chooses to remind himself that theologians take a dim view of moral progress among the creatures of Original Sin, he can do little more than assert that although we know that man is not a god, still we are justified in putting some trust in human intelligence and will (a statement that no theologian would wish to controvert). It is this recourse to a mild optimism (always supported by argument, and perfectly honest) that may lead the reader to wonder whether perhaps the *parti pris* of less cool and objective minds—say the tragic intelligence of the poet—might not ask more significant questions and afford more realistic answers.

It is just at this point, where the sociologist tackles problems that have obsessed the theologians and the poets throughout the centuries, that our more fundamental doubts begin. Objectivity

and the incremental method are essential to a science. But is science enough? Is society, which consists of human beings with souls as well as minds, wholly susceptible to scientific analysis? Is it enough to pose reason against unreason, even with a psychological apparatus for analysis of the latter? It is no doubt true that our object should be to maintain and increase the sovereignty of reason enthroned among the passions. But what if there be a reason which subsumes as well as subdues the passions? Sooner or later we are bound to ask ourselves how much "unreason" we have got to pay for (say) "King Lear," or "Paradise Lost," or "The Ancient Mariner." It is possible to drag the net of analysis through the dark seas of the subconsciousness of their authors, as Professor Livingston Lowes did for Coleridge in "The Road to Xanadu," but even Professor Lowes concluded, at the end of all his toil, that the alchemy that goes on in the great deep eluded him. What went on there was evidently neither reason nor unreason, neither a wholly conscious artifice nor the wholly unconscious labour of an intuitive faculty. What makes a great work of art is a creative principle in man which eludes the probe and the callipers. The very existence of great works of art, and the fact that men live and die by them, is our everlasting witness that there is a creative principle in man which transcends both the reason and the unreason of the social scientist. The ultimate question that we want answering—really, the only question that is worth asking—can be met only by the affirmation of the reality of a religious experience: which is what we do when we partake of the modifying power of great poetry.

No doubt Professor Ginsberg would agree to all this. He would probably reply, with all the modesty that shines like a quiet flame in everything he writes, that he accepts the limitations of his science, that he is concerned only to illuminate and define the phenomena within the limited field of observed social behaviour. But art and religion are, and always have been, the most profoundly modifying forces in every human society, and the problems which their existence and operation raise seem scarcely to enter into Professor Ginsberg's careful calculations. Even the virtues of this book give rise to these fundamental questionings. It is all so smooth, so quiet, so self-restrained, and sometimes so dull. Whereas, we all know that life is not like that at all. Rather is it, as a poet once put it, a lightsome chaos on which the spirit of God is moving. We feel at the end that we would have liked a little more appreciation of both the chaos and the presiding spirit. The trouble is, I suppose, that their admission would prevent

sociology from being a science, and if you are a sociologist there are some things you have to do without.

R. J. WHITE

Downing College,
Cambridge.

Sydney Olivier. Letters and Selected Writings, edited with a Memoir by MARGARET OLIVIER, with Some Impressions by BERNARD SHAW. (London: George Allen & Unwin, 1948. Pp. 252. 15*s*.)

No one has as yet satisfactorily solved the problem of how to write the life of a personality which expressed itself mainly in action, whether that action were physical or administrative; the physical performer, the dancer, athlete or acrobat, may even be the easier to write about, if only for the reason that, being unable himself to put pen to paper, he yet stimulated others to put upon record their impressions of him. Your administrator, your Civil Servant who writes memoranda and essays, or even possibly books, in his spare time, provides no such jumping-off ground for the littérateur, and yet leaves little or nothing of his own to commemorate him.

Of such a kind was Sydney Olivier, Lord Olivier. He was an intellectual, capable of original thought, one of the Big Four of the early Fabian Society (the others being Bernard Shaw, Sidney Webb and Graham Wallas), contributor to the original series of *Fabian Essays*, whose vitality is so great that another edition of them was published this year, nearly sixty years after their first appearance. He wrote several books, one of which, *White Capital and Coloured Labour*, was a valuable contribution to the problems of the modern world; he was, by all accounts, a highly efficient Colonial administrator whose talents, in this particular field, were eventually lost to the world because he was not prepared to accept the straightforward doctrine of white supremacy; and he was also an individual in his own right, a personality of whom other personalities had to take account.

All this is matter of common knowledge among all who ever met Olivier, or who knew anyone who had met him. But little or nothing of it emerges from this book. It opens with an essay by Bernard Shaw, as entertaining as all Shavian products, which with great modesty tells the reader that Sydney Olivier was, in his way, as important a man as Bernard Shaw. It continues with an autobiographical scrap written by Olivier himself which whets

the appetite; but is followed by a very summary Life eked out by some letters of no particular merit or interest, ending in a generalised wail about the state of the universe in 1942. The remaining sixty pages are taken up with some trivial reprinted articles and some brief official notes about Olivier's career in the Colonial Office.

It may be that nothing better could be done—that there were no records from which a living story of book length could be made. If this is so, a rapidly written, impressionistic pamphlet would have been a better memorial—or even a collection of half-a-dozen essays by contemporaries, to set alongside Shaw's. Olivier was a person, and a person who did good work—this could have been brought out in brief studies. But to endeavour to puff out the life of a man of unspectacular action into the length of a book unfortunately results in making him into a bore.

MARGARET COLE

London.

NOTES AND MEMORANDA

Human Waste: an Analysis of Labour Turn-Over in Industry

The high figures of Labour Turnover are exercising the minds of those responsible for management, to an increasing degree at present. At a time when man-power, and still more woman-power, is desperately short, the shortage is being aggravated week by week by the number of people either just beginning or in process of finishing their work with a particular firm.

In sheer bald figures of time wasted in this way, there is first of all the clerical work involved in stopping and starting employees. It has been estimated that in the employment office an average of one hour's work must be spent on every new starter and the same on every leaver. Assuming that the annual labour turnover is 33% (this figure is based on an average turnover in fifty-six firms), in a firm of 3,000, 2,000 hours of work are spent annually (or, in other words, the entire working year of one person) simply in the clerical business of "signing on" and "signing off." In the wages department, where clock cards, health cards, P.A.Y.E. forms and many other details are involved, probably a further 2,000 hours are required. Beyond the sphere of the individual firm, there is the work at the Employment Exchanges, involving at a very rough estimate 1,000 hours.

But the time wasted on clerical work is a mere fraction of the time lost directly by production. However familiar a man may be with the general methods of the work he is embarking on, it can be reckoned that the major part of his first day will be spent in arrangements for starting him and in making him familiar with the general routine of the firm and the particulars of his job. In some cases, of course, the foreman or chargehand must spend hours in introducing him to it, and it may be weeks before he is able to work with the speed and efficiency of the old-stagers. Similarly, his impending departure from the firm will be marked by visits to the employment office and wages department, and by a general slowing down of his work or even by total absence. It is reasonable to assume that the very minimum time lost from

production by every man who comes and then leaves is two working days; that is, in the firm we took as an example, a total of 16,000 to 18,000 hours annually.

It is easy to speculate on methods to avoid this wastage by reducing the loss of employees. It is more important first to ascertain the real facts about the situation. The writer of this article belongs to a large engineering firm (one, no doubt, of many) in which an effort has been made systematically to analyse the figures of losses and to classify the causes of them.

First, it was discovered that of all new hourly paid starters with the firm, 24% would normally leave in less than one month, 37% in less than two months and 82% in less than two years. Men were less inclined to leave than women, 20% surviving less than one month, 31% less than two months and 77% less than two years; while the women's figures for the same periods were 33%, 53% and 93%. In other words, for hourly paid workers, one out of every three men and more than one out of every two women would have to be replaced every two months. And at the end of two years, only twenty-three men and seven women in every hundred could be expected to survive. (The monthly and weekly paid staff figures were lower, being 10%, 17% and 52% for the same periods.)

These rather startling figures showed that the high labour turnover was due not so much to a loss of settled employees, as to the existence of a large "floating population" of workers, coming and going, without any feeling of dependence upon or interest in the firm of which they were temporarily members.

The next step was to discover and classify the reasons for their departure. The official reasons given were available, but were usually too vague, such as "other work" or "dissatisfaction," and in some cases palpably untrue, as, *e.g.*, "work nearer home" from people living only a few streets away. It was recognised that to get the real reasons a more personal and painstaking interview was required. During the two years since then the writer has interviewed between six and seven hundred people (including two hundred women and nearly a hundred apprentices). The procedure followed has had the object of putting the man at his ease and asking in a friendly way why he was going. In order to avoid giving too much appearance of inquisition, the interview was used also to tell him how to draw his final wages, holiday-pay, etc. While no attempt was made to suggest reasons to him, it was usually advisable to ask him if he had any grievance. If he appeared reluctant to state the real reason, he was given the

assurance that anything he said would be treated as confidential so far as his name was concerned.

The reasons given were classified loosely under two main heads: those outside the firm's control and those which in varying degrees could be influenced by the firm. Outside our control were placed health and domestic reasons, distance from home and moves from the district. Those reasons considered within the firm's control were arranged, again very generally, into those involving no dissatisfaction and those in which some dissatisfaction was apparent. Obviously it might be said that where there was no dissatisfaction (the main reasons given being return to a former job or desire for a change) the firm could not be expected to exercise influence. But I shall try to show later that this is not necessarily the case. Sources of dissatisfaction were classified under prospects, pay, conditions, type of work, relations with superior or workmates and size of firm. A small final heading was left to cover those who were unwilling to give a reason.

A further classification was made, dividing leavers first of all into "long-service" and "short-service" employees, the difference being between those of six years' service and over, and those of under six years' service. The dividing line chosen was an arbitrary one, except in so far as the Emergency Works Order controlling engagements had come into force about six years previously. Apprentices were placed under a heading separate from either of these. The two main headings were then subdivided into men and women, and further sub-divided, in the case of the men, into staff (*i.e.*, monthly and weekly paid), hourly paid skilled, and hourly paid semi- and unskilled; in the case of the women, into staff and hourly paid.

Naturally enough, in some cases the interviews resulted in the employee deciding not to leave, in others they returned after a short period of work elsewhere. While, of course, such results were gratifying, the main object of the interviews was continually borne in mind, namely, to get a picture of the situation as a whole. Though there is always danger in forming general conclusions, except after a very wide and careful study of individual cases, certain points seem to have become clear.

First, while the grievances were usually not very deep ones the general attitude towards leaving and going elsewhere, even among those of many years' service, was extremely casual. The women and the skilled men particularly were conscious of the fact that they would have no difficulty in finding other work immediately. The present Control of Engagement Order, while limiting

their choice on very broad lines, in no way deterred them, and they were quick to accept a job bringing in a few extra shillings a week without considering its security as compared with the post they were leaving. This accounts for the great preponderance of the pay reasons given, 186 out of a possible total of 390 reasons expressing dissatisfaction, and for some of the forty-four " prospects " reasons. It accounts also for many of the forty-one leavers who, without expressing dissatisfaction, simply signified a desire for a change (most of these were ex-service men, who often added the statement that they " could not settle down ").

Of the other causes of dissatisfaction, twenty-three expressed inability to get on with their workmates and fifteen a difference of opinion with their superior; 106 (mostly women and apprentices) criticised the physical conditions of their work, or expressed dislike of the work itself; and a small but significant number (eight) said they did not like working in so large a firm.

The grouping of those interviewed under various headings brought out some further points. The reasons for women leaving were more often unavoidable than those for the men; of the seventy-nine women expressing dissatisfaction a high proportion (thirty-three) criticised conditions and type of work (this was due mainly to a preponderance of monotonous work, in contrast with the men); a comparatively smaller proportion were dissatisfied with their pay.

Monthly and weekly paid staff were inclined to worry more about future prospects than immediate pay, sometimes claiming that they were not given a clear picture of promotion possibilities. Long service, also, brought a greater, though by no means exclusive, emphasis on prospects rather than pay. Among the hourly paid men, there was no marked difference in grounds for departure between skilled and unskilled; neither group had given much thought to physical conditions.

The apprentices presented rather a separate problem, for two reasons; their youth usually made the financial problem less pressing (though none the less present) and their inexperience in industrial matters meant that they often began their apprenticeship with a wrong notion about engineering. As a result, those who left usually did so after a very short period, complaining in thirty-five cases out of sixty-one that they did not like engineering. Some of those who stayed longer (twelve) were tempted by higher wages in " dead-end " jobs. And ten of those who had returned after their period of National Service suffered from the ex-service man's " desire for a change."

The general impression gained was that apart from the wage-problem, aggravated by the artificial situation of the present time and requiring settlement in most cases at industrial and national levels, there were few specific causes for complaint which could not be dealt with by the firm over a shorter or longer period. In many cases the remedy was obvious, and only time was required to give them effect.

But the fundamental problem remained, the " casual attitude " to the firm, coupled with the ease of getting work elsewhere. At one time a man's attachment to a particular firm would have been unpleasantly enhanced by fear of unemployment if he left. Now, fortunately, that fear has gone, and may well never return. There is therefore all the more need to draw out from the employees an attachment which will keep them happily settled. In other words, the negative process of solving or preventing grievances is less important than the building up of a positive loyalty.

The significance of the eight who left to get work in a smaller firm is surely that they desired a " sense of belonging " which they did not think they could get in one so large as ours. The answer here may be the encouraging of departmental loyalty and even of inter-departmental rivalry; or it may be possible, even in a large firm, to breed the " sense of belonging " which many, consciously or unconsciously, desire.

Such a process must take time, and many experiments, successful and unsuccessful, must be tried in the course of it. Pension-schemes, long-service awards, a clear statement of promotion prospects, careful explanation of wage-rates and piece-prices, possibly profit-sharing, will have an effect in offsetting the natural tendency to rush off to where a few shillings more a week are being offered, by the confidence in a more solid and secure reward for faithful service. But there is a wide field for exploration in non-financial incentives. Information and inclusion are the key-words here: information provided by notices, news-sheets, literature, lectures and every other means available, about the firm's policy, products, history, organisation and finance, and coupled with all items of personal and informal interest; inclusion through committees, suggestion-schemes, discussions, interviews and a fair hearing at all times. Personal informal contact between all levels and all departments of office and works is often difficult, but none the less necessary. A social club may help here, and if run by the employees themselves may increase their sense of belonging. Whatever is done must be planned deliber-

ately on a long-term basis; the bigger the firm the more deliberate and painstaking must be the plan.

By these measures, a great deal can be done to help the ex-service man to settle down again in the life of the community, and to encourage a long-term view in the apprentice who has not grasped the importance of his career. Even monotony of work (a major problem in many firms) can be relieved by a sense of purpose and achievement. By these means team-loyalty, well understood already by recreational enthusiasts, yet in need of being systematically taught to people in industry, can smooth over many of the frictions among workmates.

It must again be emphasised that the process will take time, and measurable results may not immediately be apparent. It is a spirit rather than an organisation that is aimed at, the building up of a loyalty rather than the mere removal of discomforts. But we are encouraged, by what we know of other firms' experience and by the effects of the experiments we are already making, to go forward with our long-term plans to eliminate waste of human material and to produce, as well as the goods we manufacture, a stable, loyal and happy community.

ROBERT JAMES

CURRENT TOPICS

WE record with great regret the death of Professor Wesley Clair Mitchell. We hope to publish an obituary notice in a forthcoming issue.

MR. D. G. CHAMPERNOWNE, Director of the Institute of Statistics at Oxford, has been appointed Professor of Statistics. He will be succeeded as Director by Mr. F. A. Burchardt.

ATTENTION is drawn to the reappearance of *Oxford Economic Papers*. The new series will be published twice yearly by the Oxford University Press.

WE shall be glad to receive copies of the ECONOMIC JOURNAL for March, June and September 1948. Any member who returns a copy in good condition to the Assistant Secretary, 6 Humberstone Road, Cambridge, will be paid 3*s*. 6*d*. for each issue.

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

SERIES B (METHODOLOGICAL), VOL. X, No. 1, 1948. *A Study of the Autoregressive Nature of the Time Series Used for Tinbergen's Model of the Economic System of the United States, 1919–1932 :* G. H. ORCUTT. *Control by Gauging :* W. L. STEVENS. *Confounding in Asymmetrical Factorial Experiments :* K. R. NAIR and C. R. RAO. *The Asymptotic Distributions of the Roots of Certain Determinantal Equations :* T. W. ANDERSON. *Studies in Relations between Economic Time Series :* R. C. GEARY.

Economica.

NOVEMBER 1948. *Consumption Theory in Terms of Revealed Preference :* P. A. SAMUELSON. *A Comment on Duopoly :* A. C. PIGOU. *The Multiplier :* R. TURVEY. *History and Ourselves :* G. J. RENIER. *The Diagrammatic Representation of National Income Flows :* R. C. TRESS. *Losses of U.K. Merchant Ships in World War II :* M. G. KENDALL. *New Light on an Old Story :* D. H. ROBERTSON.

The Manchester School of Economic and Social Studies.

SEPTEMBER 1948. *Planning and Spontaneous Order :* M. POLANYI. *Notes on the Analysis of Socialism as a Vocational Problem :* D. J. DEWEY. *Municipal Transport Costs and Revenue : 1938–9 and 1945–6 :* J. F. SLEEMAN.

The Sociological Review.

JANUARY–OCTOBER 1945. *Social Processes according to Von Weise :* C. S. MIHANOVICH. *A Study of the Occupational Histories of Juveniles in Edinburgh, 1943–1945 :* RUTH M. CRICHTON. *The Research Interview :* MOYA WOODSIDE. *History and Psychology :* P. C. GORDON WALKER. *Phases in the Evolution of Family Life in Yugoslavia :* VERA EHRLICH-STEIN.

International Affairs.

OCTOBER 1948. *Palestine—the last days of the mandate :* SIR ALAN CUNNINGHAM. *Britain, the Commonwealth and Western Union :* N. MANSERGH. *Finland since the Armistice :* J. H. JACKSON. *Atomic Energy Control ; the present position :* H. E. WIMPERIS. *The Bogota Conference and Recent Development in Pan-American Relations ; a Mexican view :* F. CUEVAS. *The International Bank for Reconstruction and Development :* J. W. BEYEN. *Japan's Fatal Blunder :* SIR GEORGE SANSOM. *The Study of History in the Light of Current Developments :* A. J. TOYNBEE.

Bulletin of the Oxford University Institute of Statistics.

OCTOBER 1948. *The National Product before and after the War :* D. SEERS. *The Abolition of Food Subsidies :* T. BALOGH.

London and Cambridge Economic Service.

VOL. XXVI, BULLETIN IV. *The Economic Survey for 1948 :* S. R. DENNISON. *The Market for Consumers' Goods and Services :* W. B. REDDAWAY. *The Balance of Payments :* R. C. TRESS. *A Check to the Price Rise ? :* R. G. D. ALLEN. *Wages :* A. L. BOWLEY. *Capital Formation : I, The Building and Civil Engineering Industries :* IAN BOWEN. *World Commodity Survey :* C. F. CARTER. *Canada :* D. C. MACGREGOR.

The Banker.

NOVEMBER 1948. *Australia—Import Restrictions or Dollar Loan?*: D. B. COPLAND. *The Floating Franc. The Rate of Exchange in Securities Transactions*: D. SACHS. *Scotland: an economic and industrial survey.*

DECEMBER 1948. *Debate on Steel*: W. WILLIS and G. D. H. COLE. *Austerity in 1952. Legal Strain in a Planned Economy*: F. R. RYDER. *Economic Consequences of Mr. Truman.*

The Bankers' Magazine.

NOVEMBER 1948. *Alternative to Bank Rate. Mr. C. F. Cobbold. Mr. D. G. M. Bernard. The Staff Magazines*: W. RIDLEY. *Machines and Men*: A. G. CHAMBERS.

Barclays Bank Review.

NOVEMBER 1948. *Ten Years of Monetary Expansion. European Payments Agreement. The United Kingdom Export Drive and the Future*: A. H. S. HINCHLIFFE. *World Supplies of Oil.*

District Bank Review.

DECEMBER 1948. *Industrial Growing Pains. Buy British. Good Husbandry.*

Lloyds Bank Review.

JANUARY 1949. *Taxation and the Supply of Capital for Industry*: S. P. CHAMBERS. *The Economic Position of Switzerland*: W. E. RAPPARD. *Industrial Productivity*: S. R. DENNISON. *The Outlook for British Agriculture*: K. A. H. MURRAY.

Midland Bank Review.

NOVEMBER 1948. *The Bank for International Settlements: its place in the post-war world.*

National Provincial Bank Review.

NOVEMBER 1948. *Towards an Anglo-American Partnership*: BARBARA WARD. *Six Months of Disinflation; a survey of trading conditions*: H. G. HODDER.

Westminster Bank Review.

NOVEMBER 1948. *Savings and Investment*: F. W. PAISH. *Hopes and Fears. "Sorry! No Cigarettes." The European Payments Scheme. World Hunger and Purchasing-power.*

Planning.

VOL. XV, NO. 290. *The Opera in Britain.*
VOL. XV, NO. 291. *Local Elections. How Many Vote?*

The South African Journal of Economics.

JUNE 1948. *Aspects of the Problem of Full Employment in South Africa*: C. G. W. SCHUMANN. *Pre-Union Building Society Legislation*: E. H. D. ARNDT. *Some Methodological Problems Raised by the Calculation of the Union's National Income by Income Type*: D. G. FRANZSEN. *The Second Report of the Distribution Costs Commission*: H. S. MABIN. *Reply*: C. S. RICHARDS. *Municipal Markets; their function and future*: S. J. DE SWARDT. *Further Observations on Foreign Exchange Rates*: J. L. SADIE.

Sankhyā (The Indian Journal of Statistics).

VOL. 9, PART 1, OCTOBER 1948. *Ancillary Statistics and Fiducial Distributions*: A. R. G. OWEN. *Notes on Testing of Composite Hypotheses, II*: S. N. ROY. *A Test for Field Uniformity Based on the Space Correlation Method*: M. N. GHOSH. *Crop-cutting Experiment on Sugarcane in a Farm Cultivation*: J. M. SEN GUPTA. *Walter A. Shewhart and Statistical Quality Control in India*: P. C. MAHALANOBIS.

International Labour Review.

OCTOBER 1948. *The 31st Session of the International Labour Conference : San Francisco, June–July 1948. The Economic and Legal Status of Co-operative Institutions :* G. FAUQUET. *Problems of the Textile Industry.*

NOVEMBER 1948. *The I.L.O. and the Problem of Freedom of Association and Industrial Relations. Latin American Economic Problems and International Co-operation. Seafarers' Welfare ; some post-war developments. Payments by Results in the Building and Civil Engineering Industries in the United Kingdom. Petroleum—an industry in expansion.*

ICAO Monthly Bulletin.

SEPTEMBER 1948. *Regional Air Navigation Meetings. New ICAO Publications.*

NOVEMBER 1948. *Relations with other International Organizations.*

The Southern Economic Journal.

OCTOBER 1948. *The Oil Strike of 1945 :* M. L. HOCH. *Impact of World War II on Internal Wage Rate Structures :* J. B. PARRISH. *Mobility as a Field of Economic Research :* D. G. JOHNSON. *Some Aspects of the South's Financial Development, 1929–1946 :* E. C. GRIFFITH. *Restrictive Practices of Unionism :* C. W. RANDLE. *The North-South Differential—a different view :* S. C. SUFRIN, A. W. SWINYARD and F. M. STEPHENSON. *The Status of Stagnation Theory—Part I :* H. R. SMITH. *Note on the Kinky Oligopoly Demand Curve :* V. E. SMITH.

Foreign Affairs.

OCTOBER 1948. *Coalition for Peace :* H. F. ARMSTRONG. *The Atom Bomb as Policy Maker :* B. BRODIE. *Prospects for Stability in our Foreign Policy :* J. RESTON. *Personal Government in Mexico :* F. TANNENBAUM. *Economic Planning in the British Colonies :* BRITANNICUS. *Teaching Germans to Teach Themselves :* W. F. RUSSELL. *Emphasis on Culture in the French Zone :* P. W. BIDWELL. *Alaska, Fulcrum of Power :* J. J. TEAL. *French Labor Divided :* W. KERR. *Trial Balance in Japan :* W. I. LADEJINSKY. *The Choice in the Ruhr :* W. DIEBOLD. *Postwar Strains on the British Commonwealth :* N. MANSERGH. *South African Swing-Over :* E. H. BROOKES.

Industrial and Labor Relations Review.

OCTOBER 1948. *Union-Management Co-operation in Millinery Manufacturing in the New York Area :* P. F. BRISSENDEN and J. M. KEATING. *The Small Business Enterprise and the Management Prerogative Issue :* J. G. TURNBULL. *Equal Pay for Equal Work Legislation :* MARGUERITE J. FISHER. *Profit Sharing under Collective Bargaining :* J. N. SCANLON. *Economic and Legal Aspects of Profit-Sharing Plans :* G. SIMONS.

Harvard Business Review.

SEPTEMBER 1948. *Problems in Reporting Corporation Income :* G. D. BAILEY. *The Reality of Inventory Profits :* C. A. BLISS. *Industrial Relations with Professional Workers :* H. R. NORTHRUP. *The Lesson of Guaranteed Mortgage Certificates :* L. S. POSNER. *Indirect Approach to Market Reactions :* L. CHESKIN and L. B. WARD. *Business Organization for Effective Use of Forest Products :* W. A. HOSMER. *Western Europe's Attack on Inflation :* F. H. KLOPSTOCK. *Economic Defense of the United States :* C. C. ABBOTT. *Management Services for Small Business through Trade Associations :* I. D. ROBBINS.

Banque.

JUNE 1948. *L'Investissement international, la Banque de Bretton-Woods et le Plan Marshall :* F. PERROUX and P. PUJADE.

Schweizerische Zeitschrift Für Volkswirtschaft and Statistik.

OCTOBER 1948. *Verkehrswirtschaftlicher Überblick :* H. R. MEYER. *De Vergleich von Wirtschaftsordnungen:* A. v. MÜKLENFELS. *Zur Preis bildung bei ungewissen Erwartungen :* J. NIEHANS.

De Economist.

OCTOBER 1948. *De betekenis van de landbouw voor de toekomstige Nederlandse uitvoer :* K. H. SCHALKERS. The problem of the balance of payments has underlined the necessity of higher exports; and to achieve this end industrialisation is advocated. The possibility of the share which agriculture might play is apt to be neglected. In considering the question, it is necessary to consider what volume of exports is possible. A review of the openings for exports in agricultural products shows that investment in the agricultural sector is as important as investment elsewhere; at present these are underestimated. There is everywhere manifested an increased demand for food: in particular the figures for the U.S.A. are quoted. This indicates a structural change. The causes for this increased demand for food lie partly in the increased purchasing power of the working population; partly also in the views of governments regarding the importance of a well-fed population. It is increased productivity that creates increased purchasing power, which means increased demand for food, especially where large sections of the population were underfed before the war. There is also the influence of changed distribution, as caused by progressive taxation. Trends are indicated up to 1960, and it is suggested that under the influence of increased productivity in industry and the increase of the world population as a whole, the demand for food will continue to rise. *Enkele opmerkingen over het toekomstige prijspeil van agrarische producten :* A. L. S. BÄR. Written in conjunction with the preceding article, the object of this paper is to show that, from the side of supply also, a rise in the price of agricultural products is to be expected. The writer refers to the work of Colin Clark, of whom he is appreciative but critical. There is in future little possibility of increasing the area of production. In the U.S.A. increased intensivity is possible, but there is little possibility of increased extension of cultivation. The conclusion drawn is that in 1960 world agricultural production will probably be from 20% to 25% above the level of 1930. At the same time world population in 1960 will be from 30% to 35% greater than in 1930. Consequently the food production per head will be markedly smaller in 1960 than in 1930. If the world continues to use the same kinds of food, consumption per head will be smaller and there will be a rise in the price of food. As a consequence there will be a tendency for governments to intervene to regulate prices. *Een ideeën-compensatie met Griekenland :* W. T. H. VOGELAAR. A discussion of trade relations between the Netherlands and Greece, with reference to an article in the June number of *De Economist.*

Economia Internazionale.

AUGUST 1948. *Migrazioni e commercio internazionale :* A. SAUVY. *Effetti delle imposte e teorie del "full employment" :* E. D'ALBERGO. *Il bilancio economico nazionale :* I. JANTZEN. *L'economia europea ed i prodotti agricoli tropicali e sub-tropicali :* M. BANDINI. *I grandi problemi economici del settore pubblico :* E. ANGLADE.

Italian Economic Survey.

SEPTEMBER—OCTOBER 1948. *The Growth of International Exchanges. The Italian Economic Situation.*

Critica Economica.

JULY–AUGUST 1948. *Il dibattito sul calcolo economico in una economia socialista :* MAURICE DOBB. *Considerazioni sui presupposti della economia pianificata :* A. PESENTI. *La direzione della grande produzione industriale dell'U.R.S.S. :* A. ARAKELIAN.

Moneda Y Crédito.

JUNE 1948. *El archivo de Simón y de Cosme Ruiz :* M. LAPEYRE. *La riqueza privada española :* A. GUERREIRO. *Hidrologia española y saltos de agua :* E. BECERRIL. *La literatura económica :* J. M. NAHARRO.

Europa-Archiv.

OCTOBER 1948. *Iran zwischen den Grossmächten 1941 bis 1948. Dokumente zur Stellung Irans zwischen den Grossmächten. Die osteuropäische Wirtschaftsrevolution. Polens Rolle im künftigen europäischen Warenumsatz. Die Lage des deutschen Archivwesens nach dem Kriege. Russlandliteratur in den Vereinigten Staaten.*

NOVEMBER 1948. *Soziale Versicherung in Grossbritannien und Frankreich. Materialien zur deutschen Sozialversicherung. Der Zweijahresplan für die sowjetische Besatzungszone Deutschlands. Expansion der Staatswirtschaft.*

Ekonomiska Samfundets Tidskrift.

VOL. I, NO. 3, 1948. *Om nationalinkomst och nationalrakenskap :* V. LINDBERG. *En befolkningsstatistisk jämforelse mellan Finland och Sverige :* L. TORNQVIST.

Index.

SEPTEMBER 1948. *Economic Survey. June–August 1948.*

Revue de la Faculté des Sciences Économiques de L'Université D'Istanbul.

OCTOBER 1947–JANUARY 1948. *La position théorique du problème général de l'inflation :* V. ROUQUET LA GARRIGUE. *Nouvelles tendances de la politique financière :* F. NEUMARK.

NEW BOOKS.

British.

ARISTOTELIAN SOCIETY. Proceedings of the Aristotelian Society. New Series. Vol. XLVIII. London: Harrison, 1948. 8½". Pp. 212. 30*s*.

[This contains twelve papers on philosophical problems read to the Aristotelian Society during the session of 1947–48.]

ARISTOTELIAN SOCIETY. Supplementary Volume XXII. Logical Positivism and Ethics. London: Harrison, 1948. 8½". Pp. 215. 21*s*.

[This is an introductory address and four symposia of papers read to the joint session of the Aristotelian Society and the Mind Association at Durham in July 1948.]

BENHAM (F.). Economics. 4th edition. London : Pitman, 1948. 9". Pp. xvii + 542. 12*s*. 6*d*.

[This is a fourth edition of one of the most popular text-books of to-day. It includes very minor amendments, mainly in the form of footnotes, and a new chapter on "Post-war Economic Problems."]

Bibliography in Economics for the Honour School of Philosophy, Politics and Economics. Oxford : Basil Blackwell, 1948. 8½". Pp. 40. 2*s*.

[This select bibliography of economics, designed for undergraduate reading, was prepared at the request of the Sub-Faculty of Economics of Oxford University. It contains a useful list, not only of books, but also of the principal articles in journals to which undergraduates are ordinarily referred. It will be useful to teachers in other universities besides Oxford.]

BRENNAN (T.). Midland City. Wolverhampton Social and Industrial Survey. London: Dennis Dobson, 1948. 9½". Pp. 178. 15*s*.

[To be reviewed.]

BROWN (F.) (Ed.). Statistical Year-Book of the World Power Conference. London: Central Office of the World Power Conference, 1948. 11". Pp. 212. 45*s*.

[This represents an attempt to compile and publish international statistics of power resources, developments and utilisation on a comprehensive and comparable basis for the eleven years 1936–46.]

CENTRAL MORTGAGE AND HOUSING CORPORATION. Housing in Canada. A factual summary, July 1948. Ottawa: Central Mortgage and Housing Corporation, 1948. 9½". Pp. 89.

[This includes statistics down to mid-1948.]

DEWETT (KEWAL KRISHAN) and SINGH (GURCHARAN). Indian Economics. 3rd edition. Delhi: Premier Publishing Company, 1948. 9". Pp. xi + 806. Rs. 12/8/-.

[A new, third, edition of a text-book for Indian students which has been enlarged and revised, with new chapters on the Indian national income, full employment and the economic consequences of Indian partition.]

HARRIS (SEYMOUR E.) (Ed.). The New Economics. Keynes' Influence on Theory and Public Policy. London: Dennis Dobson, 1948. 8½". Pp. xxii + 686 + ix. 30*s*.

[This is a very welcome English edition of a volume published some little time back in the United States and already familiar to English readers.]

HASSELL (J. G.). Comparative Tables of the Sections of the Companies Acts 1929, 1947 and 1948. London: Jordan and Sons, 1948. 8½". Pp. 50. 3*s*. 6*d*.

[A comparative table which takes the subject matter of each section of the Act of 1948 and indicates in what section, if any, of the Acts of 1929 and 1947 it was covered.]

HICKS (J. R.). The Problem of Budgetary Reform. Oxford: Clarendon Press, 1948. 7". Pp. 95. 5*s*.

[To be reviewed.]

HOLLOWOOD (B.). Poor Little Rich World. London: Nelson, 1948. 6½". Pp. 167. 3*s*. 6*d*.

[This book is compiled from wireless talks given under the above title. It is enriched by charming illustrations by the author, who is familiar as Hod of Punch.]

JATHAR (G. B.) and BERI (S. G.). Elementary Economics. Bombay and London: Geoffrey Cumberlege, 1948. 7". Pp. viii + 200. 4*s*.

[An abridgement, for elementary students, of Part I of the authors' *Introduction to Economics*. This is a new third edition.]

JENNINGS (SIR IVOR). The Economy of Ceylon. Bombay and London: Oxford University Press, 1948. 7". Pp. ix + 224. 10*s*. 6*d*.

[To be reviewed.]

JONES (J. H.). The Economics of Private Enterprise. London: Pitman, 1948. 8½". Pp. ix + 482. 15*s*.

[This is a third edition of a popular text-book. The main changes which have been made since the second edition of 1933 affect Book IV, where there are new chapters on population and the economy of war, and the whole treatment of the trade cycle has been revised.]

JONES (J. H.). The Steel Industry and Nationalisation. London: Pitman, 1948. 8½". Pp. 32. 1*s*.

[Prof. Jones has spent a life-time in close contact with the steel industries. He writes as a liberal, with grave doubts of the wisdom of supplanting private enterprise by public enterprise.]

KALDOR (N.) and SILVERMAN (R.). A Statistical Analysis of Advertising Expenditure and the Revenue of the Press. (National Institute of Economic and Social Research. Economic and Social Studies, VIII. Cambridge: University Press, 1948. 9½". Pp. xv + 200. 15s.

[To be reviewed.]

KENDALL (M. G.). Rank Correlation Methods. London: Charles Griffin, 1948. 9". Pp. vi + 160. 18s.

[To be reviewed.]

Maternity in Great Britain. London: Oxford University Press, 1948. 9". Pp. xvi + 252. 12s. 6d.

[To be reviewed.]

The Nuffield Foundation. Third Report. Oxford: University Press, 1948. 8½". Pp. 91.

[This report, covering the year ending March 31, 1948, includes a section showing the numerous grants of the Foundation to the social sciences and the valuable work that has been made possible by it.]

Proceedings of the Sixth International Conference of Agricultural Economists. London: Oxford University Press, 1948. 9". Pp. xii + 508. 25s.

[This volume reprints the papers read to the Sixth International Conference of Agricultural Economists held at Dartington Hall in the autumn of 1947. The subjects fall under a few main heads: the movement of farm population; the flexibility of land tenure, capital and credit systems to meet technical economic and social developments; the effectiveness of market mechanism for adjusting farming to public need; the place of state buying and selling in free world trading; the human satisfaction of rural work and rural living. A number of other individual contributions cover technical and economic problems and include a paper by Dr. Scott Watson on the Agricultural Problem of Great Britain.]

QURESHI (ANWAR IQBAL). The Future of the Co-operative Movement in Inda. Bombay and London: Oxford University Press, 1947. 8½". Pp. 166. 10s. 6d.

[To be reviewed.]

RAJKUMAR (N. V.). Indian Political Parties. New Delhi: All-India Congress Committee, 1948. 8". Pp. 139. Rs. 2/8/-.

[This very interesting pamphlet seeks to show how political parties are gradually growing up in India. The author argues that there is a visible weakening and disruption of the Congress now that freedom has come, with internal feuds and opportunist place-seekers. The socialist party was the hope of young India, but disillusion came gradually when the party failed to give a positive lead. Communism brought odium on itself in 1942, but has partly atoned for past sins by active opposition to anti-social activities. The communal parties have no future, they have hate, but no lead to give the people. "If there is one conclusion more than any other . . . it is that India does not as yet possess a stable party system."]

Research and Scholarship in the University of Sydney. A short record of original work done during 1944 and 1945. Sydney: Australasian Medical Publishing Company, 1948. 8½". Pp. 101.

[This includes information of work in economics and the social services done in those years.]

Review of the Co-operative Movement in India 1939–46. Bombay: Reserve Bank of India, 1948. 8½". Pp. 111.

[This review, covering the years 1939–46, contains an immense volume of useful statistical material. In particular, it brings out the great financial strengthening of the societies during the war years, the stabilisation of the weaker societies, the elimination of a large volume of bad debts, and frozen debts, the building up of surplus funds. At the moment the societies are strong, rich and looking for new activities or new opportunities to expand along familiar lines. It is greatly to be hoped that this prosperity will continue.]

ROAD TRANSPORT EXECUTIVE. Gazetteer of Undertakings acquired to October 31st, 1948. No. 2. London: Road Transport Executive, 1948. 8". Pp. 51.

[This lists the road-transport undertakings acquired and indicates the nature of the business that they have been conducting.]

SILVERMAN (H. A.). The Substance of Economics. London: Pitman, 1948. 8½". Pp. xvi + 364. 15*s.*

[A new twelfth edition which has been revised and brought up to date.]

SMITH (L. J. MORRIS). Jordan's New Company Law 1948. London: Jordan & Sons, 1948. 8½". Pp. vi + 97. 7*s.* 6*d.*

[This book gives an account of the change in the legal position of Companies which are embodied in the Companies Act of 1948.]

SMITH (OLIVER). Index to the Companies Act 1948. London: Jordan & Sons, 1948. 8½". Pp. 62. 5*s.*

[A subject index which gives references to the section or schedule and page in the King's Printer's copy of the Act on which each subject is treated.]

SOCIALIST PARTY OF GREAT BRITAIN. Russia since 1917. Socialist Views of Bolshevik Policy. London: Socialist Party of Great Britain, 1948. 7". Pp. 113. 1*s.*

[This pamphlet is a collection of twenty-one articles published originally in the *Socialist Standard* and covering a period of over thirty years. They are reprinted exactly as published.]

Statistical Statements relating to the Co-operative Movement in India for the Year 1945–46. Bombay: Reserve Bank of India, 1948. 13". Pp. 20. Rs. 2.

[The statistics show a tremendous growth since the 1930s.]

SUBRAHMANYAM (A. N.). An Inquiry into Economic Theory. University of Mysore, Studies in Economics and Politics No. 4. Mysore: Government Branch Press, 1948. 8½". Pp. viii + 115. Rs. 1/4/-.

[To be reviewed.]

THORNE (W. J.). Banking. London: Oxford University Press, 1948. 6½". Pp. 160. 5*s.*

[To be reviewed.]

WILSON (T.). Fluctuations in Income and Employment. London: Pitman, 1948. 8½". Pp. x + 217. 20*s.*

[This is the third edition of a book reviewed by Mrs. Robinson in the ECONOMIC JOURNAL of December 1942. It has been revised to bring it up to date and to reflect certain changes in the author's own thinking.]

WISEMAN (H. V.). The West Indies. Towards a new Dominion? London: Fabian Publications and Victor Gollancz, 1948. 8". Pp. 45. 2*s.*

[The main purpose of this pamphlet is to consider the possibilities of federation in the West Indies, as a first step towards Dominion status. Like most Fabian pamphlets, it is packed with useful facts, figures and ideas.]

American.

BASSETT (H. Y.). What does Industry expect of a Community? University of Alabama: Bureau of Public Administration, 1948. 6". Pp. 19.

[A paper by the Vice-President of one of the Divisions of the Calumet and Hecla Company which describes why the company selected the City of Decatur for its new plant and rejected a large number of alternative sites. The reasons by no means fit into the usual text-book list of the factors determining location.]

CULLITON (J. W.). The Management of Marketing Costs. Harvard University: Graduate School of Business Administration, 1948. 8". Pp. x + 166. $2.50.

[To be reviewed.]

Education for Professional Responsibility. Pittsburgh: Carnegie Press, 1948. 8". Pp. x + 207.

[This is a report of the proceedings of a conference on education for professional responsibility which was held at Brick Hill Falls, Pennsylvania, in April 1948. It covers a wide range of professions, and education for business and other activities in which economists employ their professional talents occupies only a small part of the volume. There are, however, included three or four papers which are of interest in that connection.]

EVANS (G. H.). Business Incorporations in the United States 1800–1943. New York: National Bureau of Economic Research, 1948. 11". Pp. viii + 184. $6.00.

[To be reviewed.]

HACKER (L. M.) and Others. The New Industrial Relations. Ithaca, New York: Cornell University Press (London: Geoffrey Cumberlege), 1948. 9". Pp. 150. 11*s*. 6*d*.

[Five lectures given at Cornell University in the early months of 1948 under the sponsorship of the New York State School of Industrial and Labor Relations. The lecturers were Louis M. Hacker, Benjamin M. Selekman, Ralph T. Seward, William J. Dickson and T. V. Smith.]

HAGUE (H. M.). The Use of Training Films in Department and Specialty Stores. Harvard University: Graduate School of Business Administration, 1948. 8". Pp. vi + 148. $1.50.

[The U.S. Armed Forces made great use of films and other audio-visual training aids. The possible extension of their use to training for civil occupations is being studied by the Harvard Graduate School of Business Administration. This monograph is one of the results.]

KAPLAN (A. D. H.). Small Business: its place and problems. New York and London: McGraw-Hill, 1948. 9". Pp. xiv + 281. 19*s*. 6*d*.

[To be reviewed.]

KILLOUGH (H. B.) and KILLOUGH (LUCY W.). Economics of International Trade. 2nd edition. New York and London: McGraw-Hill, 1948. 9". Pp. xiv + 463. 30*s*.

[This is a second edition of a book noted in the ECONOMIC JOURNAL of June 1938. The new edition devotes less space to descriptive analysis of industries and resources and more to the underlying economic principles. The first three parts are in the main historical and bring the developments of practice and theory down to Adam Smith. Part III deals with the developments of the theory of comparative costs, the developments of free trade and the problems of the balances of payments during the nineteenth century and the first part of the twentieth; it ends with a discussion of full-employment policies, economic nationalism and tariff policies. Finally, Part IV covers more recent tendencies, including the dislocations due to the last war, the Bretton Woods Agreement, I.T.O. and the position of the U.S.A. in the world economy.]

KIRKLAND (E. C.). Men, Cities and Transportation. A study in New England History. 1820–1900. 2 vols. Harvard University Press (London: Geoffrey Cumberlege), 1948. 9½". Pp. xvi + 528 + ix + 499. 70*s*.

[To be reviewed.]

LETICHE (J. M.). Reciprocal Trade Agreements in the World Economy. New York: King's Crown Press (London: Geoffrey Cumberlege), 1948. 9″. Pp. x + 82. 3*s*.

[This pamphlet is of great interest. It covers not only the whole range of problems concerned with the Reciprocal Trade Agreements Act of 1934 but also the wider issue of U.S. commercial policy in a post-war world.]

LYONS (L. M.) (Ed.). The Nieman Fellows Report. An account of an educational experiment in its tenth year. Cambridge, Mass.: Harvard University Press (London: Geoffrey Cumberlege), 1948. 8½″. Pp. 133. 15*s*.

[Each year since 1938 about a dozen journalists have gone to Harvard with Nieman Fellowships, established in memory of the founder of the Milwaukee Journal to raise the standards of journalism. This volume gives short accounts by some of the first hundred and twenty fellows of what they did at Harvard, why they did it and what they got out of Harvard.]

MCCAHAN (D.) (Ed.). The Beneficiary in Life Insurance. Philadelphia: University of Pennsylvania Press (London: Geoffrey Cumberlege), 1948. 8½″. Pp. xiii + 250. 20*s*.

[A volume of ten lectures by leading United States authorities on different aspects of life insurance, with the beneficiary as the centre of thought.]

MACE (M. L.). The Board of Directors in Small Corporations. Harvard University: Graduate School of Business Administration, 1948. 8″. Pp. 92. $2.00.

[This monograph deals with the functions, qualifications and incentives of directors of small corporations.]

MAYO (E.). Some Notes on the Psychology of Pierre Janet. Harvard University Press (London: Geoffrey Cumberlege), 1948. 7½″. Pp. vii + 132. 14*s*.

[Prof. Mayo deals with those aspects of Janet's work which are of particular importance to students of the social sciences and industrial psychology.]

MUND (V. A.). Open Markets. An essential of free enterprise. New York and London: Harper Bros., 1948. 8″. Pp. xi + 272. $3.00.

[This book is a history of the rise and decline of open markets, including descriptions of contemporary monopolistic practices and concluding with a presentation of the case for increasing the " perfection " of markets for the basic products of industry and agriculture. Both the historical and the critical sections suffer from over-simplification: for example, to ascribe the whole of the contemporary liability to general unemployment to monopolistic practices is to overstate a strong case.]

NATIONAL PLANNING ASSOCIATION. Planning Pamphlets, No. 64. *The Role of Uprooted People in European Recovery.* By Jane P. C. Carey. Washington D.C.: National Planning Association, 1948. 7½″. Pp. 85. $1.00.

[A full and detailed analysis of the problem of Displaced Persons in Europe and of the immense difficulties involved in their movement and resettlement.]

PATTERSON (S. H.) and SCHOLZ (K. W. H.). Economic Problems of Modern Life. 4th edition. New York and London: McGraw-Hill, 1948. 9″. Pp. xx + 782. 28*s*. 6*d*.

[A new fourth edition of a text-book which first appeared in 1927. While the original plan has been retained, the economic changes of the past decade have necessitated a complete re-writing.]

POLLAK (O.). Social Adjustment in Old Age. A Research Planning Report. Bulletin 59. New York: Social Science Research Council, 1948. 9″. Pp. x + 199.

[The purpose of this monograph is to pose the questions for research into the problems of old age rather than to answer them. It covers in the main the

demographic problem of increasing proportions of the old aged and the psychological problems of adjustment involved in retirement, dependency and old age generally.]

YODER (DALE). Demands for Labor: Opportunities for Research. (Social Science Research Council, Pamphlet 7.) New York: Social Science Research Council, 1948. 9″. Pp. 40. 50 cents.

[The purpose of this pamphlet is to show analytically the fields in which useful research into problems of the labour market might be conducted.]

French.

AFTALION (A.). Monnaie et Économie Dirigée. Paris: Librairie du Recueil Sirey, 1948. 9″. Pp. 413. 600 frs.

[To be reviewed.]

Swiss.

BEGLINGER (J.-F.). Les Conditions Économiques de la Paix. Lausanne: Librairie F. Rouge, 1947. 9″. Pp. 264.

[To be reviewed.]

FURLAN (L. V.). Das Harmoniegesetz der Statistik. Eine Untersuchung über die metrische Interdependenz der sozialen Erscheinungen. Basle: Verlag für Recht und Gesellschaft AG, 1946. 9″. Pp. ix + 504.

[This is a most extraordinary book. Prof. Furlan has set himself the task of studying the behaviour of aggregates of statistical numbers (such as are found in the tables of statistical yearbooks) without reference to their subject matter. For this purpose he selects the frequency distribution of the first significant figure of these numbers (which he calls the "*Indikante*") for special analysis. He asserts that if numbers are selected from statistical tables, the frequency of cases in which the first significant figure is s would approximate to $\log_{10}\left(1 + \frac{1}{s}\right)$ in the statistical sense. In particular, the digit 1 would be found as the first significant figure in about 30% of all the cases. Professor Furlan calls this frequency distribution "harmonic" and shows that a similar distribution of first significant figures would be found if the series 1^r, 2^r, 3^r, 4^r . . . were studied for large values of r. On the basis of the coincidence of these two distributions a number of rather vague generalisations are made regarding the growth of economic and social phenomena as a whole. The book contains a number of amusing statements about the frequency distributions of the *Indikanten* of artificially constructed aggregates, but one remains rather puzzled about the relevance and importance of the so-called "harmonic" law. Even if it did hold true under all circumstances it seems little more than an oddity from which no further fruitful conclusions can be drawn. The whole book is written in a prolix fashion, and there is no index. One cannot help feeling that a subject which might have made an amusing paper has been inflated out of all proportion to its importance.]

Official.

BRITISH.

Queensland Year Book, 1947. No. 8. Brisbane: Government Statistican, 1948. 8½″. Pp. 397.

[This new issue contains statistical material in most cases for 1946 and in certain cases also for 1947.]

Report of the Interdepartmental Committee on Social and Economic Research. London: H.M. Stationery Office, 1948. 9½″. Pp. 15. 4*d*.

[This report deals with problems of economic and social research conducted in government departments and the access of outside research workers to material in the possession of government departments. It is of very great interest to all engaged in economic research.]

Second Annual Report of the Registrar of Banks for the Period ended 30th June 1947. Pretoria: Government Printer, 1948. 13". Pp. 36. 5*s*.

[This contains valuable statistical material relative to banks in the Union of South Africa.]

Social and Economic Planning Council. Third Annual Report for the year ended 30th September 1947. Pretoria: Government Printer, 1947. 9". Pp. 16. 1*s*. 6*d*.

[This includes a short economic survey of conditions in South Africa over the year ending September 1947.]

Tenth Annual Report of the Registrar of Building Societies for the Period ended 31st December 1947. Pretoria: Government Printer, 1948. 13". Pp. 27. 3*s*.

[This includes full statistics of assets and liabilities of the building societies operating in the Union of South Africa.]

Dutch.

White Paper Regarding the Measures for the Currency Rehabilitation in the Netherlands. The Hague: Government Publishers (London: H.M. Stationery Office), 1947. 9½". Pp. 219. 10*s*.

[A White Paper issued by the Netherlands Minister of Finance which describes the measures taken for currency rehabilitation. The primary object was to secure monetary equilibrium by restricting the use of the surplus purchasing power resulting from the War, which was in danger of driving up prices. At the same time the monetary reforms restored the incentives to work and was a necessary means of restoring the budgetary position. The White Paper describes in detail all the processes of withdrawal of the old note issues and the subsequent measures of deblocking.]

French.

Banque de France. Compte Rendu des Opérations présenté à Monsieur le Président de la République au nom du Conseil General de la Banque de France par M. Emmanuel Monick, Gouverneur, et Rapport de MM. les Censeurs. Paris: Imprimeries Paul Dupont, 1948. 12½". Pp. 62.

[An annual report of the operations of the Bank of France during 1947. It begins with a general economic review of the year.]

International.

United Nations. Selected World Economic Indices. Lake Success: United Nations, Department of Economic Affairs (London: H.M. Stationery Office), 1948. 11". Pp. 53. 5*s*.

[This is the first of a new series prepared by the Department of Economic Affairs of the United Nations. It shows both statistically and diagrammatically the trends in thirty-six main fields of economic activity. In most cases 1938 is taken as a base, and figures are given for the first and last quarter of 1947 and for the first quarter of 1948. There is in most cases a certain amount of country break-down, and as well as a world total, the components for U.S., U.K. and other leading countries of major economic importance are given. World agricultural production for 1947–48 is given as about 93½% of 1934–38 and world industrial production in the last quarter of 1947 as 135% of 1938, or, excluding U.S.A., Germany and Japan, 119% of 1938.]

THE ECONOMIC JOURNAL

JUNE, 1949

WHOLESALE PRICES, 1938–48

THE index number of wholesale prices as now calculated by the Board of Trade is not a satisfactory indicator of post-war price movements. No one would deny this, least of all the Board of Trade. The index is based on 1930, and the choice of items and their weights was guided by conditions in that year. Moreover, it was then deemed impossible to obtain price series for most manufactured articles, so that the index includes the prices of very few end products of manufacturing. Clearly, we need a revised index based—and more broadly based than hitherto—on the year 1948, in respect of which a Census of Production is being taken. In the last section of this article, we set out some considerations on the nature of the revisions which are desirable. However, we must first analyse, as far as possible with existing price series, the structure of prices in 1948 in relation to a pre-war year (1938). Such an analysis is of interest in itself, and it will also guide us in making suggestions for a new index of wholesale prices based on 1948.[1]

I

There are several index numbers of prices of *basic food products*, home produced and imported. Some of them are of little present use, since they include food products at various stages of production and distribution, some prices being before and others after subsidies. What we require, first, are index numbers of basic products before subsidies. The best for this purpose are the index of average values of food imports (Board of Trade) and the index of agricultural prices (Ministry of Agriculture). The latter is, in

[1] I have to acknowledge assistance received from the Economic Research Division at the London School of Economics in the laborious computations involved in this analysis, from the Board of Trade in placing at my disposal the individual price series of their index of wholesale prices and from the Ministry of Food in providing information on the incidence of food subsidies without which some of my calculations would have been impossible. None of these organisations has any responsibility for my conclusions.

effect, an index of prices received by domestic farmers, inclusive of direct Government payments. The following tables involve some re-grouping of the constituents of these two index numbers.

In Table I, the index of average values of imports is shown rather than that of import prices, since we wish to trace changes

TABLE I

Index Numbers of Average Values of Food Imports

(Average 1938 = 100)

	Grain and flour.	Meat.	Dairy produce.	Other foods.	All foods.	Tobacco.
Average 1946	262	187	212	227	217	235
1947	299	200	234	282	255	237
1948	333	213	275	294	282	228

NOTES.

Other Foods (and All Foods) include fish, fruit and vegetables (fresh and preserved), tea, coffee, cocoa, sugar and miscellaneous manufactured foods, together with alcoholic drinks; but exclude animal feeding-stuffs (except grain), live animals and oilseeds. Tobacco average values are before duty.

in what we pay for the imports actually brought in, allowing for their changing sources and composition. We are not interested here in the changes in world prices of particular commodities. Against the use of average values, it can be argued that they reflect changes in quality as well as in price. This is true, but the argument applies much more to manufactures than to the more basic food products and raw materials. We can take the average values index, at least for food and raw materials, as a fair indication of changes in the prices paid for the imports we actually get.

The index of average values of food imports is by no means confined to basic food products. since it includes manufactured foods and alcoholic drinks. But it does represent prices (mainly) before subsidies at the earliest stage at which foods enter production and distribution in this country. Similarly, the index of agricultural prices, shown in Table II, reflects prices received by domestic farmers, before food subsidies and with acreage payments. Here, livestock and dairy produce should strictly be regarded as " intermediate products " and their prices are reduced by the effect of the subsidy on animal feeding-stuffs. It might be better to go back to the basic materials (*e.g.*, feeding-stuffs), but no suitable price series are available.

The level of prices in 1948 was about 2¾ times that in 1938 for food imports and rather less, perhaps 2½ times 1938, for prices received by domestic farmers. The price rise from 1938 was more

TABLE II

Index Numbers of Agricultural Prices

(Average 1938 = 100)

	Grain.	Potatoes.	Livestock.	Dairy produce.
Average 1946 . .	219	190	184	209
1947 . .	226	208	218	225
1948 . .	264	234	240	243

NOTES.

Grain—wheat, barley and oats.
Livestock—cattle, cows, sheep, ewes, bacon and pork pigs, sows and poultry.
Dairy Produce—milk, butter and eggs.

Weights vary from year to year as in the Ministry of Agriculture index.

than average for grain, 1948 import prices being about $3\frac{1}{3}$ times 1938 and $2\frac{2}{3}$ times 1938 for prices to domestic farmers. The price rise was below average, on the other hand, for livestock products, for meat and (to a less extent) dairy produce. Miscellaneous foodstuffs, such as sugar, fruit and vegetables, show a price rise above average.

II

For *final food products,* there is an official (Ministry of Labour) index of retail prices on June 1947 = 100, and this can be carried back to 1938.[1] The price changes, however, are not shown for separate food categories, only for all food purchased by working-class families. There is no existing wholesale-price index for food products and manufactures in the final stage. An approximation to such an index can be constructed from individual price series used in wholesale-price index numbers, and the index shown in Table III has been built up in this way. Individual price series have been selected from the Board of Trade's index, and two new series added to fill out the fruit and vegetables group. Some revisions have been made in the basic series to improve the comparison with 1938. The series are then averaged with an arithmetic (not geometric) mean, with a revised weighting estimated from amounts flowing through distributive channels. The new index, however, is not fully satisfactory, since most manufactured (branded) foods are still missing. Flour is included, for example, but not biscuits, and fresh fruit but not tinned fruit. We can claim that it is better than anything now existing, but still not good enough; it probably over-states the price rise for food products.

[1] See London and Cambridge Economic Service, *Bulletin,* February 1949.

In particular, the prices in the index are recorded at a uniform stage as regards subsidies, *i.e.*, they are after subsidies of all kinds (except the special Welfare Schemes). The most striking feature of the monthly figures in Table III is that, apart from those

Table III

Index Numbers of Prices of Food Products and Tobacco

(Average 1938 = 100)

	Wholesale prices of food products.						Retail prices, food.	Tobacco prices.		
	Cereals.	Meat and fish.	Dairy produce.	Fruit and vegetables.	Other foods.	All foods.		Wholesale. Before duty.	Wholesale. After duty.	Retail.
Average 1946	119	151	125	234	189	158	129	200	366	356
1947	131	152	121	277	207	167	137	214	501	333
1948	135	162	139	249	249	177	149	224	580	370
1948 Jan.	135	149	121	268	250	171	143	217	556	359
Feb.	135	161	141	250	249	177	149	217	556	359
Mar.	135	164	141	251	249	179	150	217	556	359
Apr.	135	164	141	263	249	180	151	217	581	373
May	135	164	141	261	249	180	150	217	588	373
June	135	164	141	264	249	180	157	217	588	373
Jul.	135	164	141	255	249	179	149	222	589	373
Aug.	135	164	141	264	249	180	148	223	589	373
Sep.	135	164	141	238	249	177	148	223	589	373
Oct.	135	164	141	229	249	175	148	240	591	373
Nov.	135	164	141	235	249	176	149	240	591	373
Dec.	135	164	141	206	245	172	149	240	591	373
Fiscal Year 1948–49:										
After subsidies	135	164	141	236	248	176	150			
Before subsidies	260	240	255	244	299	255	202			

NOTES.

Wholesale prices of food products (monthly averages), composition and weights :—

Cereals—flour, bakers (3), flour, non-bakers (2), oatmeal (½), rice (⅓).

Meat and fish—beef, home (3), beef, imported (3), mutton, home (1), lamb, imported (2), pork, home (1), bacon (3), ham (1), chickens (1), cod (½), haddock (⅓), plaice (⅓), herrings (⅓), canned salmon (½).

Dairy Produce—milk (4), butter (4), margarine (1), cheese (1), eggs, home (2), eggs, imported (1).

Fruit and vegetables—apples (1), bananas (1), oranges (1), potatoes (1), tomatoes (1), cabbage (1), onions (1).

Other foods—sugar (granulated), domestic (2), sugar (granulated), manufacturing (2), sugar (cube) (⅓), tea (2), coffee (⅓), cocoa (⅓).

Retail prices (mid-month), see London and Cambridge Economic Service, *Bulletin*, February 1949.

Tobacco prices, wholesale, series from Board of Trade's wholesale-price index.

Tobacco prices, retail, from White Papers on *National Income and Expenditure*, monthly figures showing only Budget change.

prices which are permitted to vary seasonally (mainly fruit and vegetables), controlled prices are changed only infrequently. There were price rises early in 1948 but, after March, the only

important changes were a small reduction in the price of milk (October) and a large cut in the price of cocoa (December).

The last two rows in Table III show the results of a calculation of the rise in prices of food products without subsidies. We must be quite clear on the meaning of this calculation. In many discussions the effect on prices of the elimination of food subsidies is clearly meant to be the effect of the abolition *both* of subsidies *and* of price control and rationing. It is hazardous even to guess at the resulting price change; certainly, it cannot be measured. The present calculation is based on a more limited but completely definite interpretation. The question posed is: what will be the effect on particular prices, and hence on a particular index number of prices, of the reduction of the *net* subsidy on each commodity to zero, price control and rationing remaining otherwise unchanged? The reduction of net subsidies to zero is different from the abolition of subsidies. For example, if subsidies were abolished, the price of imported eggs would be different from that of home-produced eggs. If the net subsidy on eggs is reduced to zero, with eggs continuing to be sold at a uniform price, then a profit will be made on (say) imported eggs, balancing a loss on home eggs.

The calculation for the index of wholesale prices of food products proceeds item by item. It is made for the fiscal year 1948–49, since a year must be taken to avoid seasonal effects and since the information used (*Hansard*, September 24, 1948, written answer by Mr. Jay) relates to the fiscal year. The index of prices (after subsidies) is assumed to continue into 1949 at the December 1948 level. The effect of a direct subsidy on a commodity on the price of the commodity is given in *Hansard.* In addition, the bulk (£57 million in the year) of the subsidy on animal feeding-stuffs is allocated to the main items affected (bacon, milk and eggs). In the end, all food subsidies are allowed for except for the small balance of that on feeding-stuffs (not attributable to food distributed through commercial channels) and the small subsidy on fertilisers and molasses. It should be noticed that, once the effect of a 100% reduction in subsidies is obtained, it is a simple arithmetical matter to deduce the effect of a reduction by any other proportion (say by half) across the board, or indeed of a reduction differentiating between subsidies.

For all items in the wholesale-price index, the elimination of subsidies (in the present sense) raises the price level from 176 to 255% of 1938, *i.e.*, the rise is 45%. The corresponding effect on the retail-price index cannot be calculated directly, since details of price changes by separate food items or groups are not published.

The present calculation, however, assumes that the same *absolute* increase occurs, item by item, on the wholesale and on the retail price. The relation between wholesale and retail prices is known for many items and suggests that the *percentage* increase in retail food prices due to elimination of subsidies is 35%, as compared with 45% for wholesale prices. Hence, retail food prices, 150% of 1938 after subsidies, work out at 202% of 1938 before subsidies. The corresponding effect on the index of retail prices, all items, is a rise of 12%, *i.e.*, from 175 to 196% of 1938.[1]

We can now bring together our results for food prices in 1948. Prices were 250–280% of 1938 for basic foodstuffs, home produced and imported; these prices are (mainly) at a stage before subsidies have their effect. Wholesale prices of food products after subsidies were 175% of 1938, and retail prices after subsidies 150% of 1938. Without subsidies, however, wholesale prices would be 250% and retail prices 200% of 1938. Hence, as between "basic" and wholesale prices, the actual difference in the price change from 1938 is mainly a matter of subsidies. On the other hand, the difference between wholesale and retail price changes is the usual "cushioning" effect of approximately fixed mark-ups; apart from subsidies, retail prices would be double, but wholesale prices 2½ times 1938. Further, the larger price rise from 1938 in cereals as compared with livestock products, noticed at the "basic" stage, is scarcely seen in wholesale prices before subsidies. In fact, there is little difference in the rises since 1938 between various commodity prices at wholesale. The main exception is the larger rise in the prices of the group comprising sugar, tea, coffee and cocoa, all imported items.

Table III also shows changes in tobacco prices at wholesale and at retail. Before duty, raw tobacco prices in 1948 were 2½ times the 1938 level, a smaller rise than for other agricultural produce. After duty, 1948 prices at wholesale were nearly 6 times 1938, toned down to under 4 times 1938 at retail.

III

Available data on prices of *fuel, power and light* are summarised in Table IV.

The price rise from 1938 to 1948, about 90% at wholesale and 60% at retail, is smaller than in other broad categories of com-

[1] On June 1947 = 100, the effect is to increase the retail-price index for 1948–49 from 108 to 121. This calculation, therefore, confirms the statement made by Mr. Jay in the House of Commons (*Hansard*, December 17, 1948, col. 1619).

TABLE IV

Index Numbers of Fuel, Power and Light Prices

(Average 1938 = 100)

	Wholesale prices.					Retail prices.
	Coal.	Petroleum.	Gas.	Electricity.	All items.	
Average 1946 .	201	138	142	89	164	142
1947 .	220	143	145	85	175	147
1948 .	235	161	156	92	189	161

NOTES.

Wholesale-price index numbers combined with weights—coal (4), petroleum (2), gas (1), electricity (1). Coal and petroleum series from Board of Trade's wholesale-price index, export coal being excluded. Gas and electricity series from White Papers on *National Income and Expenditure*, for personal consumption (1948 provisional).

Retail-price index, see London and Cambridge Economic Service, *Bulletin*, February 1949. The index comprises coal, gas, electricity and other fuel, but excludes petroleum.

modities. Coal prices alone increased by 1948 to as much as double the 1938 level. The index of coal prices shown is for domestic coals, prices at pit or f.o.b. in the coastwise trade. Export prices were raised above domestic prices in 1948; that of South Wales Steam in 1948 was 334% of 1938.

IV

There is a choice of index numbers of prices of *industrial raw materials*. For imported materials, the index of average values calculated by the Board of Trade can be used; this is based on the narrow definition of raw materials in the Trade Returns, excluding (for example) pig iron and copper ingots. For wholesale prices, there are (amongst others) the *Statist* index of materials and the Board of Trade's index of basic materials. Neither is satisfactory. The *Statist* index is an average of 26 series, mainly basic materials but including coal, petroleum and some intermediate products such as leather. The Board of Trade index is a selection of price series from the broad group of industrial materials and manufactures, and its main defect is that the selection gives rise to an unbalanced weighting. Out of a total weight of 33, paper-making materials account for 9 and hides and skins 5, whereas the iron-and-steel group has a weight of only 1 and non-ferrous metals of 4.[1]

[1] The basic-materials index is a selection from the wider index *without re-weighting*. The selected series have the same weights as in the wider index and some of them carry the weight of intermediate and manufactured products as

What is required is an index of prices of industrial raw materials on a rather broader basis and weighted more systematically. An approximation to this is provided by the specially constructed index shown in Table V. Apart from one additional series

TABLE V

Index Numbers of Prices of Industrial Materials

(Average 1938 = 100)

	Average values, imports.	Wholesale prices of industrial raw materials.								Wholesale prices, materials (*Statist*).
		Iron and steel.	Non-ferrous metals.	All metals.	Natural fibres.	Hides and skins.	Forest products.	All agric.	All materials.	
Average 1946	221	145	182	157	224	161	224	218	191	231
1947	278	152	278	194	307	170	281	283	243	291
1948	325	165	311	214	416	326	337	372	301	340
1948 Jan.	300	161	291	204	350	328	335	341	280	328
Feb.	304	164	297	208	364	328	338	349	286	333
Mar.	306	164	297	208	395	328	337	362	293	335
Apr.	323	164	297	208	426	328	338	377	301	337
May	328	164	297	208	454	328	339	390	309	341
June	334	165	301	210	470	323	340	398	313	346
July	339	166	301	211	444	322	341	386	308	345
Aug.	340	166	303	212	428	322	338	377	303	343
Sep.	330	167	303	212	412	322	337	370	299	340
Oct.	329	167	343	226	398	322	337	363	301	341
Nov.	332	167	344	226	411	327	335	368	304	345
Dec.	335	167	359	231	439	329	334	381	314	348

NOTES.

Average values, imports, annual averages interpolated in 1948 (monthly) by use of index of import prices.

Wholesale prices of industrial raw materials (monthly averages), composition and weights:—

Iron and steel—pig iron (7), steel billets (2), tinplate bars (1), wire rods (1), scrap (1).

Non-ferrous metals—copper (1), brass (1), lead (1), tin (1), zinc (1), aluminium (½), nickel (½).

Natural fibres—raw cotton (4), raw wool (2), wool tops (2), jute (1), sisal (1).

Hides and skins—hides, imported (1), hides, home (½), calf and goatskins (½).

Forest products—timber, soft (1½), timber, hard (1½), wood pulp, chemical (2), wood pulp, mechanical (1), art, silk yarn (2), rubber (1), oils, technical (1).

Wholesale prices of materials, *Statist* index (end of month) averaged in pairs.

(linseed oil), the components are all taken from the Board of Trade's wholesale-price index, with certain revisions in linking with 1938. A rough weighting is adopted, and the series are averaged with an arithmetic mean. It can be argued that iron

well as the weight of the raw material. So, it happens that the single series for iron ore has been separated from a set of prices of iron and steel products while paper-making materials carry the whole weight of the paper group in the wider index.

and steel are under-weighted in the index; their weight is certainly on the low side. On the other hand, there are subsidies on iron and steel, so that the rise in prices (before subsidies) in this group would be larger than shown. The incidence of the subsidies cannot be determined at all accurately; as an estimate, the iron-and-steel price index in 1948, 165% of 1938, would be raised to at least 180% of 1938 if subsidies were eliminated.

Prices of industrial materials are governed not so much by subsidies as by price control, which extends over most items included in the wholesale-price index. For a particular commodity, price changes may not be frequent, but they can be large when they occur. The monthly figures of Table V indicate, however, that price changes do not tend to occur at the same time for different materials even in the same group (except, perhaps, in January, a favourite time for price adjustments). The monthly index numbers for groups show quite frequent changes. The general pattern of change in 1948 was a price rise until mid-year, then some decline and a recovery in the last four months of the year. Raw cotton and wool were the main items which set this pattern. Non-ferrous metals, the other group which increased largely in price in the year, showed no price decline, and the rise in the last few months was sharp. Rubber prices followed the general pattern, except that they were still falling at the year end. Most of the other prices were steady after January.

As with foodstuffs, the rise in prices from 1938 to 1948 was greater for materials imports than for materials at wholesale. The general rise for materials, however, was larger than for foodstuffs. Import prices in 1948 were some $3\frac{1}{4}$ times the level of 1938, and wholesale prices were 3 times 1938. An important feature of the change from 1938 to 1948 was the differential between the price rise for metals and that for materials of agricultural origin. Even if subsidies on iron and steel are allowed for, metal prices in 1948 were not more than $2\frac{1}{4}$ times the 1938 level, whereas prices of agricultural materials were $3\frac{3}{4}$ times 1938. The price movements in the second half of 1948, however, tended to reduce this differential. Non-ferrous-metal prices were nearly 20% higher in December than in June, whereas prices of agricultural materials (and of foods) were generally rather lower at the year end. This reflects the continued strong demand for capital goods (augmented by re-armament in the U.S. and elsewhere) on the one hand, and the recovery in world agriculture on the other.

V

There is no satisfactory index number of the prices of *manufactured products*. The Board of Trade index of wholesale prices, while including a wide range of raw materials and intermediate products, contains practically no quotations of prices of finished manufactures. The group entitled "manufactured articles" is, in fact, composed mainly of intermediate products such as finished steel, copper tubes, cotton cloths, chemicals and bricks. In the absence of any continuous series of prices of manufactures, we attempt here to approximate to an index for manufactures by combining two index numbers, one of the price of intermediate products, and the other of hourly earnings in the finishing sections of the industry concerned. The two are combined in proportions shown by the materials and wages bills in the industry in the pre-war period. The index of hourly earnings is calculated on the basis of fixed numbers (as in 1938) of men and women in the various sections of the industry. A number of assumptions is involved in this process of combining unit materials and unit labour costs if it is to give an indication of changes in the price of the product. In particular, it is assumed that there is no change in productivity. The whole process, however, is a rough approximation at best and no substitute for a series of price quotations of finished manufactures.

Tables VI and VII show such index numbers for metal products and for clothing (excluding footwear), together with the related

TABLE VI

Index Numbers of Prices of Metal Products

(Average 1938 = 100)

	Prices of raw materials.		Prices of finished iron and steel.	Wholesale prices of metal products.	Retail prices of household durables.
	Iron and steel.	Non-ferrous metals.			
Average 1946	145	182	153	164	205
1947	152	278	163	188	219
1948	165	311	172	200	232

NOTES.

Raw materials prices, as in Table V.

Finished-iron-and-steel prices, from Board of Trade's wholesale-price index, comprising twenty quotations for finished steel and five quotations for iron.

Wholesale prices of metal products, as described in text with weights: finished-iron-and-steel prices (21), non-ferrous-metals prices (5), hourly earnings in engineering and finished-metal-products trades (14).

Retail prices, see London and Cambridge Economic Service, *Bulletin*, February 1949.

TABLE VII

Index Numbers of Prices of Clothing (Excluding Footwear).

(Average 1938 = 100)

	Prices of raw materials.	Prices of intermediate products.		Wholesale prices of clothing.	Retail prices of clothing.
		Yarns.	Cloth, etc.		
Average 1946	202	216	177	179	171
1947	255	240	184	189	175
1948	348	281	274	258	191

NOTES.

Raw materials index composed of raw cotton (weight 4), raw wool and tops (4) and artificial silk yarn (2).

Index of yarns composed of cotton yarns (4), wool yarns (5), artificial silk and linen yarns (6).

Index of cloth, etc., composed of cotton cloth (5), wool cloth (5), hosiery yarns (2) and wool skeins (1).

Wholesale prices of clothing, as described in text with weights: prices of cloth, etc. (7), hourly earnings in hosiery and clothing (excluding footwear) trades (3).

Retail prices, see London and Cambridge Economic Service, *Bulletin*, February 1949. This index includes footwear, but, at retail, the price changes for footwear and other clothing are approximately equal.

series for raw materials and intermediate products and the corresponding retail-price index for working-class families.

The price rise from 1938 to 1948 for metal products increases as we pass from pig iron and steel ingots to finished steel and to finished products. For clothing, the opposite is true, the price rise falls off between the raw materials and the finished products. The results for metal products are due, in part at least, to the effect of subsidies and purchase tax. Iron and steel are subsidised at the raw-materials stage; the main subsidies are on imported scrap, pig iron and steel and on freights on imported ores. Apart from these subsidies, the prices of basic and intermediate iron and steel would be at about the same level, perhaps a little more than double 1938, as prices of metal products. Retail prices show a larger increase over 1938 (particularly in 1946) because of the incidence of purchase tax.

The tapering off in the price rise between textile raw materials and clothing is not an effect of subsidies (which were eliminated in this group at the beginning of 1948). It may be attributed to control through the utility scheme and to the "cushioning" effect of almost fixed mark-ups. The effect of the clothing subsidies, which were at the cloth stage, can be seen in the period (1946–47) before they were removed. The price rise from 1938 is damped down from the cloth stage onwards. If subsidies had

continued in 1948, the level of prices (average 1938 = 100) after subsidies would have been roughly as follows, on the basis of a simple extrapolation from 1947 :—

	Wholesale prices.		Retail prices, clothing.
	Cloth, etc.	Clothing.	
After subsidies . . .	200	205	180
Before subsidies . . .	274	258	191

Hence, the elimination of the clothing subsidies raised wholesale prices by around 35% for cloths and about 25% for clothing. The effect on retail prices of clothing, including footwear, was smaller. Even excluding footwear, subsidies affected the retail price by only 10% or so.

No general conclusion can be reached on the rise in prices of manufactured goods from 1938 to 1948. If metal products and clothing can be taken as typical, wholesale prices in 1948 were between 2 and 2½ times the 1938 level. The rise at retail may be somewhat less, but, here, subsidies and purchase tax have a confusing effect. Apart from both subsidies and purchase tax, retail prices in 1948 were of the order of double 1938 prices.

A rough comparison can also be made between export and domestic prices. In 1948, export prices of metal goods were about 230% of 1938. This is a larger rise than that in either finished steel or metal products at wholesale on the domestic market. Similarly, export prices of textiles in 1948 were 340% of 1938—a greater increase than for yarns, cloths or clothing on the domestic wholesale market. Export prices are not subject to the same controls as domestic and, at least up to 1948, it was possible to keep them high.

VI

We can now summarise the main features of the price structure in 1948 in comparison with 1938. In round figures, these are given on p. 149.

There is no " general level " of prices in 1948; the price changes since 1938 are very different in different groups. The most noticeable differentials are those between the prices of metals and of agricultural products and between fuel prices and prices of all other (non-subsidised) commodities. The former differential is seen most clearly at the raw-product stage; it tapers off in the end-product stages, at wholesale and retail.

Prices in 1948 in percentage of 1938.

	Before sub-sidies.	After sub-sidies.		Before sub-sidies.	After sub-sidies.
Basic foodstuffs	250–280	—	Food products :		
Raw materials :			Wholesale	255	175
Natural fibres	415	—	Retail	200	150
Other agricultural	335	—	Clothing :		
Metals	225[1]	215	Wholesale	260	—
Fuel, power and light :			Retail	190	—
			Metal products :		
Wholesale	190	—	Wholesale	205[1]	200
Retail	160	—	Retail	235[1]	230

[1] Roughly estimated.

NOTE : Retail prices are for working-class families.

The effect of subsidies is shown in the table. Many retail prices are also affected by indirect taxes, but to an extent which is not easily calculated with available data. In particular, prices of metal products at retail, 230% of 1938, are raised by purchase taxes. Without these taxes and subsidies, these prices would not be more than double 1938.

VII

The present Board of Trade index of wholesale prices is due for revision. The need for revision is recognised by the Board of Trade and urgent consideration is being given to the form revision should take. I would say, and I believe the Board of Trade would agree, that the revision must be complete and drastic; no half measures can be accepted. The main defects and disadvantages of the index can be quickly summarised. First, the index was designed, and is certainly generally thought of, as a "general-purpose" index showing changes in the "general level" of wholesale prices and indicating the changing "value of money." Whatever point this may have had in the past—a debatable matter—it has none to-day.[1] What is needed is an examination of the price structure, not of the general level of prices, and of changes in the structure under changing conditions (including subsidies and indirect taxes). Secondly, whatever the purpose of the index, the choice of price series was defective. The index includes practically no finished manufactures, priced at wholesale.

[1] The "purchasing value of money" can be defined and measured by the reciprocal of an index of retail prices taken over the whole field of consumers' expenditure on goods and services (cf. *Hansard*, January 31, 1949, written answer by Sir Stafford Cripps). But the use of any wholesale-price index in this connection seems to me to be, at least, inappropriate.

The difficulties in the way of getting such prices are formidable; they can be, and must be, overcome. Thirdly, the grouping of the price series in the index is limited and rigid. This may have arisen because the object was to produce one "general-purpose" index so that a single grouping of all items adding to a total was all that was thought necessary. Once the "general-purpose" concept is given up, all kinds of over-lapping groupings and re-groupings become possible and desirable. Finally, the formula of the index is a geometric mean of price relatives, rather roughly weighted (on the out-of-date basis of 1930). The geometric form has many practical advantages, but it is subject to serious objection.

The following are some suggestions for a revised index. They are framed in broad terms, without going into the countless difficulties of detail. The general plan of the index, and the grouping of the series composing it, must be considered first. Clearly, a large number of representative price series is needed. It is not a matter of a large sample of prices at all stages of processing and distribution. It is rather a question of having enough prices to display in various but definite combinations. "Enough" must be several hundred, but probably short of a thousand series.

As regards groupings, the foregoing analysis suggests that the prime consideration must be a broad double classification by end use of product and by stage of production and distribution. Three product groups are essential: fuel, power and light; food, drink and tobacco; other manufactures. The first group need not be classified by production stage, but a distinction may be made between industrial-, commercial- and private-consumption uses. The other two groups can each be divided by stages of production and distribution, specifically raw, intermediate and final products. There may be (and generally will be) a change in product, *e.g.*, wheat, flour, biscuits. Some items pass through the three stages physically without much change, *e.g.*, vegetables priced to farmer, to wholesaler and to retailer. There may be difficulties about which are the raw products, *e.g.*, livestock on the hoof or feeding-stuffs. But, in general, at least three stages can be fixed.

Next, the raw products can be classified by source. The simplest grouping is probably: minerals—iron and steel, non-ferrous metals, other minerals; agricultural—farm crops, animal products, forest products. Intermediate and manufactured products can be broadly classified to conform, by the major raw material used. They should also be further classified by end use, particularly into consumer and producer goods.

A further classification, though perhaps a subsidiary one, is by main industrial groups, such as vehicles or textiles and clothing. In each group, price-index numbers are required for the raw materials used, for the intermediate and for the final products. It is to be stressed that, here as in all classifications, all the price series assembled need not be used in a grouping, and any one price series can appear in several groups.

Once the general plan and groupings are fixed, the choice of series can be made. In each group, representative price quotations are to be selected. It is not necessary that all " important " prices must be taken. If two prices are highly correlated in their movements, one will generally serve. It may be better to take in a less " important " price which has a different movement.

The specification of the price quotations is a vital matter. Prices should be obtained on recognised wholesale markets, not average import values or at retail. Most important, however, is the need to price at a uniform stage or market. Raw products may be priced at the point of first sale in the U.K. Final products may be taken at the price as sold by wholesaler to retailer. But, whatever stage is fixed, the same point should be sought for each commodity. To take, for example, some products at the price paid by wholesaler and others at that paid by retailers can make the resulting index of little use, particularly in view of the incidence of subsidies and indirect taxes.

A question arises here whether export prices should be included or not. It is perhaps best to confine the wholesale-price index to domestic trade, including imports, but excluding exports. A subsidiary index can be constructed of wholesale prices of commodities intended for export, an index which can be matched with a price or average-values index from data on external trade.

The weighting of the price series is the next point to consider. There are two stages, the weighting of items within a group and the weighting of the various groups in a classification. The first is of relatively minor importance, since weighting within a group can often be left to be covered by the choice of items and, in any case, it can be of the simplest kind. The weighting of groups, however, should be decided with care. But what are the weights to be? The volume of transactions is one possibility, but this method, depending on the number of times a commodity changes hands, would lead to an index of very special use. The practical choice is between production and consumption, including variants such as production plus imports and consumption plus exports. If

the index is to be confined to domestic prices, the choice narrows to consumption or production less exports and plus imports. The former seems preferable on balance.[1]

Finally, there remains the question of formula for combining price relatives with the aid of the weights determined. The present index of the Board of Trade is a geometric mean of price relatives with a simple weighting system. The geometric form has big advantages. The base can be changed by simple division, and the index is " reversible " in a comparison between two dates. Existing series can be removed and new ones spliced on without difficulty. The calculation can be done with month-to-month changes on the chain method.[2]

All this depends, however, on the weights remaining constant over time. If the weights in period 1 are different from those in period 0, then the geometric form is no more reversible between periods 0 and 1 than the arithmetic. The common form of an index number, a base-weighted arithmetic mean of relatives (Laspeyre's form), was deliberately avoided in the Board of Trade's index. Laspeyre's form measures the changing cost of fixed quantities (those of the base period); the index was designed to allow for decreased use of commodities which increased more than the average in price. In fact, however, the index assumes more than this, namely that the proportionate distribution of the values of different commodities used remains fixed as relative prices change—the decreased (relative) use just compensates for the increased (relative) price leaving (relative) value unchanged.[3] This is a very special assumption and particularly dangerous, since it is usually not explicitly stated. In the first place, quantities used or purchased need not decrease when a relatively large price rise occurs. We are not dealing with hypothetical price changes to a given group of purchasers at a given time—but with actual changes over time when purchasers can change their views

[1] The " difficulty " often mentioned, concerning multiple counting when raw, intermediate and final products are included, disappears with the concept of a " general price level." The groups we are considering are groups of raw products, or groups of intermediate products, or groups of final products. The weights for each grouping can be fixed without double counting. Whether the three groupings are finally thrown together or not is a matter almost of indifference.

[2] This may have disadvantages in practice. Any error made in computing one link in the chain will continue in all subsequent links. Further, there is never any reason to keep a continuous series of any one price quotation back to the base—and so no reason to review the appropriateness of the series.

[3] If the index is one of prices to an individual consumer, this condition can be interpreted in terms of the elasticity of demand with respect to a compensated price change.

(or their "preferences") on various commodities.[1] Hence, the geometric form may not be nearer the " truth " than Laspeyre's; indeed, there may be no " truth " at all in the price comparison. Secondly, even if the geometric form is nearer to a " true " index than Laspeyre's, it is still not precisely the " truth "—but it is easy to slip into the habit of thinking that it is.

Recent developments in thought about index numbers all point to the conclusion that it is preferable to calculate both the base weighted (Laspeyre) and the current weighted (Paasche) arithmetic forms of the index, and to compare them. These forms are easily interpreted in terms of aggregates, and their comparison throws at least some light on whether it is meaningful to measure the price change with any index. The best practical procedure, for a wholesale-price index, is to compute it as a base-weighted arithmetic mean, *i.e.*, to measure the changing cost of purchasing the base quantities. The computation should not run for long, however, without making a comparison between the base-weighted index and the parallel current-weighted index.

The revised index, then, should be of arithmetic form, as are all the index numbers calculated in this article. It should be based on 1948, using (say) consumption in that year as weights. Every so often, perhaps every year, it should be checked against the similar index using consumption in the current year as weights. At the outset, a link back to pre-war should be made as the result of a separate comparison, as detailed as possible and with alternative (pre-war and post-war) weights. In view of the obvious difficulty of getting pre-war quotations for the prices of manufactures, this separate comparison may need to be made in part on the basis of data obtainable from censuses of production.

R. G. D. Allen

London School of Economics.

[1] See, for example, Carter, Reddaway and Stone, *The Measurement of Production Movements* (1948), pp. 71–2.

THE PROBLEM OF FRENCH RECOVERY[1]

During the fiscal year 1948–49, France is to receive more than one quarter of all aid, direct and indirect, under the program of the Organization for European Economic Co-operation. By the common judgment of her European partners, France is now in need of nearly twice the net outside aid which the United Kingdom will receive, and considerably more than twice the foreign aid which will go to Italy and the Netherlands—the other large beneficiaries. Why is France the neediest country in Europe to-day?

That question is, of course, too complex for a precise and simple answer, but there are some contributing causes of the French distress which appear stronger, and more fundamental, than others. This article, in a broad review of the French position as it appeared toward the close of 1948, attempts to isolate those fundamental causes. Study of them may perhaps provide a basis for judging the probable effectiveness of French Governmental policies, as they emerge during the coming months or years, and may also provide an insight into some of the general problems affecting the rehabilitation of Western Europe.

The primary explanation of the French need for outside assistance does not seem to lie in any of the more obvious direct effects of war. The French backlog of unrepaired war damage is no longer significant. While the actual destruction of French plant and farms was undoubtedly greater than in most other western countries, her remarkable reconstruction effort has now restored this capacity. Although much of the repair has been only improvisation, rather than replacement, it has made possible the return of overall industrial and agricultural production to pre-war levels. Nor has there been any major change in the traditional French position in world trade. France has not, because of war-time readjustments, become fundamentally any more dependent than she was before the war upon the earnings of her exports. She is still, in the potential of her manpower and resources, one of the best balanced and promising of European economies.

[1] This article was completed early in December 1948. The writer is grateful to many friends in France and colleagues in the Federal Reserve System, and particularly to Albert O. Hirschman, for assistance and advice during the preparation of the article. The responsibility for all views expressed rests, however, solely upon the writer.

The French distress is instead much more closely associated with the dislocation produced by inflation. The inflation had its source, of course, in problems generated by the war and the occupation. But the basic reason for the continuance of inflation after 1947, in the writer's view, has been the French attempt to impose an ambitious program of new investment (the Monnet Plan) upon her economy, without accepting forthrightly the sacrifices, in voluntary or compulsory saving, which such a program implies. To attribute the inflationary pressure to "over-investment" is not to question the French need for a vigorous investment program; that need has become increasingly evident since the First World War. Nor would the investment necessarily prove excessive if it were not for the long-standing weakness of the French fiscal system—a weakness going back many decades.

Foreign aid has, in effect, filled part of the gap between scheduled investment and the "natural" savings (or tax surpluses) of the French economy. But even in the magnitudes thus far available, foreign aid could not do the entire job. The remainder of the gap has been filled by credit expansion, and the peculiarly "forced" savings which that expansion implies. Meanwhile, the pattern of output in the French economy has been distorted toward fulfilling the transitory demands of the few who have profited from inflation. A structure of production and trade has been created which diverts indigenous and imported resources from the investment program itself, which necessitates use of much of the foreign aid in sustaining a minimum consumption standard for the working classes, and which will in the end have to be destroyed, at considerable waste of resources, once the inflation collapses or is choked off by effective Governmental action.

Any attempt to assess the possibility of a balanced and stable French economy by 1952 must begin with a study of the factors which have been prolonging the inflation in France, and then measure the present foreign-aid program by its influence in stimulating fundamental corrective action by the French themselves.

A. Causes of the Inflation

Since the end of the war France has continually been trying to do too much. During the first two post-war years, she made heroic progress in restoring her transport and power facilities, and in bringing her damaged farms and industrial plants back

roughly to pre-war capacity. Supplies and manpower had to be absorbed in the reconstruction task instead of being devoted to the production of goods for current consumption. It was extremely difficult during these years, when the entire population needed rest and an improvement in living conditions, to accept continued restrictions upon home consumption. Yet such restrictions were inevitable. There was not enough capacity available, even with the foreign assistance provided through a series of impromptu devices, to reconstruct *and* to raise living standards at the same time. Hesitating to accept this inevitability, the French permitted continued increases in their money supply—new money purchased the materials and labor needed for reconstruction, and to a considerable extent new money met production costs in the undamaged sectors of the economy as well, while the volume of goods actually available for home consumption necessarily rose slowly.

That is, instead of rationing their limited resources through direct controls, or of rationing in effect through heavy taxation which would divert purchasing power directly into payment for reconstruction, the French chose to do their rationing by means of rising prices. This choice may well have seemed the best among the several disagreeable alternatives open to them at the end of the war. But " bootstrap economics " work well only when there is widespread unemployment of labor and of productive capacity. Falling back upon money creation and inflation, in the fully employed post-war French economy, only generated new problems which made it impossible for France to reap the rewards of her reconstruction achievements. That is why a revival in production which should have made France one of the lesser claimants has not, in fact, reduced the French need for exceptional outside assistance.

Whether or not an inflationary course may have been the least disruptive for the early reconstruction period, there can be little doubt that continued reliance upon rising prices in order to make room for a new investment program was carrying a dangerous expedient too far. Many of the French realise that fact, and none more than M. Monnet himself. He has repeatedly insisted that his plan must be financed either by taxation or by savings directly drawn from the current-income stream. Successive Governments have agreed in principle without successfully raising revenues or reducing other Government expenditures. Meanwhile the volume of voluntary savings, except for the retained earnings of business enterprises, has shrunk to a negligible quantity under the pressure

of continued price increases. And the Monnet Plan, although frequently revised, has gone on steadily demanding more resources than could be made available, under existing taxation and savings patterns, without resort to inflationary credit expansion.

While an investment plan too large for the self-discipline of the French nation is the present fundamental cause of continued inflation, there are several other cumulative forces. One of these grows out of the distortion of the income distribution which, though initially a result of the inflation itself, has acquired an independent causal force in accentuating the inflationary process. As wages and salaries have continued to lag behind prices, the profits of the farmers, the merchants and the "trafiquants" have been enormously enlarged. The consequences have been work stoppages, cost disparities and the wasteful spending of windfall profits—all combining to throw normal economic relationships farther out of line.

Political instability has also been a factor, creating a fear psychosis with many repercussions of its own. Partly owing to lack of confidence in the Government, goods hoarding has increased; the spending of money has been speeded up. And no systematic reduction in the ordinary budget has been feasible with the Government frequently changing hands.

The banking system, too, has contributed to inflationary pressures. Where each borrower appears the innocent victim of the price increases going on around him, and anything produced can be sold, the usual guides of credit analysis lead to very few rejections of borrowers' requests. Bank credit to the private or business sector of the economy has consequently grown uninterruptedly. In the aggregate, this has permitted businesses to bid goods away from one another at higher and higher prices—though there was never any clear basis on which banks, attempting to confine credit to "productive activity," could have withheld the credit from one concern and granted it to another. Anxious to make certain that lack of finance would not block a single opportunity for production, the banks have been caught up in a vicious circle of their own—feeding the inflation which, in turn, raised the demand for bank credit.

The critical factors indicated by this analysis are, therefore, "over-investment," and the cumulative influences of income distortion, political instability and excessive bank credit. A selected portion of the evidence suggesting that these are the major causes of the debilitating inflation is presented in the following section.

B. Highlights of the French Inflation during 1948[1]

1. *Prices and wages.* As of September 1948, most French prices, regardless of minor imperfections in the various published indexes, were about eighteen times the level of 1938. While the artificially low level of rents (generally less than three times the rents of 1938) provided some offset, the overall cost of living had undoubtedly risen by at least fifteen times for the typical French urban family. Wages and salaries had not kept pace. In general, increases ranged from eight to twelve times the weekly earnings of 1938. On the other hand, the black markets offered many people an opportunity to supplement their regular earnings, and the profits of the small businessman had probably risen twenty-five times over 1938. While agricultural wages paid in francs did not rise any faster than urban wages, the level of consumption of meat and other " luxury " produce on the farms had risen so far above the real quantities consumed in 1938 that farm labor had become one of the " privileged classes."

In 1946 and 1947, according to the published data, the prices of wholesale food and the Paris retail-price index for consumer goods rose faster than other prices. But after February 1948, these two most volatile components in the price structure slowed down very sharply. There had, it is true, been seasonal relapses in the steady rise of prices during March and April of the preceding years as well. But the rate of rise in 1948 fell well behind that of the other years; and in the case of Paris retail prices, there was almost no rise at all for five months. This sudden change, following what had been a substantial seasonal spurt in January and February, produced a wave of optimism during the spring. The lull ended in August By the end of that month, wholesale food prices were still only about 30% above December 1947; Paris retail prices were but 25% over the year-end; but the monthly rate of increase had returned to the peak rate of former years.

The general index of wholesale prices in August was roughly 50% above December; running at an annual rate greater than in any post-war year. Wholesale prices of raw materials, of semi-finished products and of industrial products (*i.e.*, all components of the general index except food) were already 75% above December—an annual rate about half again as rapid as had been experienced in 1945 or 1946, and two to three times as great as

[1] Because the materials for this section were assembled in November 1948, data relate only to the first 9—or in some instances 8—months of the year.

in 1947. Non-food commodities at wholesale were catching up with the more rapid rises of food and retail prices in earlier years, and were, even in the comparative quiet of March to June, building up new disparities in the cost-price structure which were certain to break out in rampant general inflation within a short time. In August these disparities and the rising Government deficit converged, and all prices began to move up rapidly again.

2. *Physical production and national income.* The published index of industrial production indicated that the August volume of non-agricultural output, excluding services, was about 15% above the monthly average for 1938. This represented a rise of 22% over the average for 1947. Unfortunately, the imperfections of the published index produced an upward bias, and gave a misleading result. Actually, industrial production was up about 10%, rather than 22%, over the average for 1947. Agricultural harvests, largely completed but not yet fully reported at this writing, are expected to show a much greater percentage rise over 1947. But because a portion of the harvest will inevitably be hoarded, or diverted to increased consumption on the farms, or sold into the black market, the officially tabulated agricultural marketings may not rise more than 20% over the marketings of drought-ridden 1947. No direct data on the real volume of services are available for any portion of 1948.

Data for French national income are not prepared on a current basis, although tabulations eventually appear in the reports of the National Balance Sheet Commission. Crude approximations, with unofficial verification, suggest, however, that net national income in August (1948), using the prices of that month, was at least 6·0 thousand billion francs, at an annual rate. Of this amount, 0·5 thousand billion was the estimated value of Government services. In the case of public services, the 0·5 represented an increase of 0·15 over 1947, and was attributable almost entirely to rising prices; but within the other 5·5 thousand billion, there was also an element of growth in real terms. In 1947, net national income at average market prices, excluding Government services, was 2·9 thousand billion francs. Had this volume of real production remained constant, as prices rose, the rate of national income in August would have been somewhat below 5·5 thousand billion. The difference, representing the contribution of new goods and services, indicates a rise somewhere between 5 and 10% in the real volume of output—that is, in the aggregate of industrial production, agricultural production, and trade, dis-

tribution and other non-public services. Most of this increase occurred in the early months of the year.

3. *Government finance.* Budgeted Government expenditures at the beginning of 1948 were planned at a rate of 1·4 thousand billion francs, of which 0·3 thousand billion could not be met from anticipated revenues. For the first half year, however, there was not, in fact, any deficit on a current cash basis. The capital levy instituted under the Mayer Plan produced somewhat less additional revenue than anticipated, but was virtually sufficient to close the budgetary gap for the first half year. These receipts, plus the balances accruing as the franc counterpart of United States interim aid, and the partial immobilisation of the balances created by the calling in of 5,000-franc notes in January, combined to make the public sector a deflationary influence from the end of February until June.

In facing the last half year, however, the Government found rising prices had so increased its expenditures that, even after disbursing the funds absorbed during the first six months, and even assuming that all counterpart funds accruing under "Marshall Plan" deliveries (or their equivalent) could be used by the State for its capital budget, there would still remain a budgetary gap of 0·2 thousand billion francs. The effort to meet this 200 billion gap for the last half year (*i.e.*, a current annual rate of more than 400 billion francs in deficit) caused the collapse of two Governments, and led Prime Minister Queuille to formulate a many-sided program, the fate of which should be much clearer by the time this article appears in print.

4. *Investment.* Although accurate current data on the investment program are not available for 1948, rough extrapolations can be made from the plans projected at the beginning of the year. These showed that gross investment, excluding that contracted by the Government on its own account, would be slightly less than one-fifth of all resources available during the year. Adding the expected State deficit, and the capital replacement necessitated by direct taxes on capital, the entire "investment" program would be about one-quarter of all resources (including net imports). The impact of this burden on the economy can be better appraised by recognising that the additional expenditures of Government (including social security and other transfer payments), for which revenues were available without borrowing, would also use more than one-fifth of the total resources. Thus gross "investment" (including the Government deficit), plus the regular absorption of Government revenues (including transfer payments), would account

for nearly one-half of all goods and services available in France during 1948.

Of the gross investment intended for the "enterprise" sector of the economy, the division by uses was to be as follows :

Renewal and maintenance	28%
Reconstruction	12
Additions to stocks	19
New construction and equipment	41
Gross investment	100%

Business savings, including depreciation allowances, were estimated at 38% of this total, a rate adequate to cover the renewal and maintenance, and a small portion of the remainder. The net proceeds of imports would match another 30% of the gross investment. But the rest would have to come from individual savings and the Government, which by September had already begun to run a deficit on ordinary account.

The term used in French Governmental circles to refer to this investment gap, plus any which appears in the ordinary budget, is "necessary savings." By September 1948 the gap was growing, but comprehensive current data were not available. The record for 1947 is, however, illustrative. In that year the total gap proved to be 394 billion francs. Of the necessary savings which appeared to fill the gap, 294 billion were additions to the money supply; the remainder, 100 billion francs, represented the "voluntary" saving of individuals and was exactly 3·33% of the disposable monetary income of individuals for the year. Of the 394 billion francs in new indebtedness created, either as banking assets to support the enlarged money supply or as securities held by individual savers, 303 billion appeared as additions to the public debt. That is, about three-quarters of the savings gap was filled by new money, and about three-quarters of the new indebtedness consisted of new public debt. The proportion taken up by voluntary savings, judging from the desuetude of the new-issues market, and the Government's apparent failure to sell new bonds to the public from January through August, is likely to be even lower in 1948. The investment gap during this year will probably prove to be virtually synonymous with an increase in Government and business indebtedness to the banking system, matched by an equal rise in the money supply.

5. *Bank credit.* While the Government's cash surplus was permitting a reduction of 38 billion francs in its provisional advances from the Bank of France, between March 11 and June 10,

another short-run deflationary influence was also evident in the Bank's balance sheet. At the end of January roughly 200 billion of currency, in the form of 5,000-franc notes, was called in and replaced by blocked deposit accounts at the Bank of France. There were compensating releases of new currency, to a limited extent, but until the end of May total note circulation remained about 150 billion francs below the volume of 900 billion which had been outstanding at the first of the year. From the end of May to the end of September, however, note circulation returned to the 900-billion level as more of the accounts were unblocked and other banking credits increased.

On the other side of the ledger, a considerable growth in commercial-bank lending to the private sector took place during the spring. The capital levy (compulsory loan) induced heavy borrowing. But this nominally short-run borrowing, to furnish cash for paying the levy-loan, became regularised in the permanent credit lines of most large borrowers, instead of being repaid, and thereby reduced much of the presumed deflationary effect of the Government's overbalanced cash budget. In addition, the devaluation of the franc at the end of January led necessarily to a substantial rise of import prices. As these higher prices spread through the economy, from importers to basic manufacturers, from them to other processors, and then on to wholesalers and retailers, the demands for working capital increased. A doubling of coal prices, a 35% general wage increase, a rise of more than 100% in the price of electric energy, a 30–40% rise in freight rates—all added to legitimate working-capital requirements. In meeting these general needs, under the pressure of an urgency which prevented exact scrutiny of the impact upon each borrower of these particular legitimate causes of increased credit demands, the banking system had advanced an estimated 115 billion francs in new "domestic credits" by the end of June. Thus the banking system fed the rise in non-food wholesale prices during the spring which, as indicated in the discussion of prices above, prepared the way for further general-price increases later in the year.

From June forward, although the exceptional reasons for new bank credit (*i.e.*, devaluation and adjustments in administered prices for utilities services) had lost their force, the cumulative effects of uncertainty and sporadic price advances in particular sectors produced new credit demands. And the Government also began to draw anew on the banking system. Provisional advances from the Bank of France reached a new high, and by September 9

were within 35 billion of the ceiling under existing laws. The subsequent drop in these advances—as of November 25 they were about 50 billion francs below the ceiling—was attributable largely to the formal effect of releasing to the Government counterpart funds accumulating against E.C.A. deliveries. There are no current data for other bank advances to the private sector, but banking quarters agree they have been steadily rising. The aggregate effect of these new credits to the public and private sectors must inevitably be to raise prices farther. Under the most favorable assumptions the gross volume of goods and services available for purchase (in real terms) could not rise as rapidly as the money supply; in fact, owing to the continued interference with production caused by the inflation itself, availabilities in real terms might drop off.

C. Corrective Action and Foreign Aid

The record of French action to halt inflation has been a patchwork of intricate tactical defenses, first on one small front and then another. Wherever hasty, though ingenious, defenses were erected to withhold the pressure of inflation in one sector, it emerged in even greater force somewhere else. There has been no overall grand strategy. Much that has been done, piecemeal, in altering tax laws, or strengthening credit controls, or checking the drain of public funds into new services or into the deficits of the recently nationalised enterprises, has been sound in principle. But the combined effect of all these little thrusts has not been powerful enough to stop the inflation.

If it is true, as the preceding data appear to verify, that the ambitious investment program itself is the major source of continued inflationary pressure, it would seem that the time has come to reduce that program. Two Governments made abortive attempts at such reduction during 1947, and the program has already, in a technological sense, been considerably reduced from the original conception.

Yet to close the remaining gap, the reduction must be drastic. To accomplish that, there will first have to be an increased awareness of what underlies the inflation, an awareness both among French Governmental leaders and the public generally. Many of the leaders and most of the people see inflation now as an inexorable force—resulting in some inscrutable way from the heavy war burdens which France has carried for her allies, and from a vaguely defined set of other causes far beyond the control of the French themselves. In this instinctive reaction, of course, the

ordinary Frenchman senses a large part of the explanation, without actually seeing the cause.

France needs not only reconstruction, but also substantial new investment to catch up with the productivity advances introduced in America, and Britian, and Belgium, and Germany, during the two world wars and the intervening years. Yet that lost ground cannot be recovered in haste, even with substantial outside aid, unless the French standard of living is also to be held at depressed levels during the grueling period of capital building. It may seem unfair; it is certainly unrewarding to the present war-weary generation; but the facts are unalterable. Sharp reduction in the Monnet Plan need not, on the other hand, jeopardise "viability in 1952." On the contrary, it is the continued inflation which jeopardises not only viability as such, but also the success of the projected investment program itself. Reduction of the Plan may, however, mean viability at a lower level of total output, and of the general standard of living, than the French have been hoping to achieve by 1952. It will also mean open acceptance of a slow rate of progress toward the French goal of supplanting Germany as the center of heavy manufacturing in Europe.

A fully employed economy cannot accomplish a doubling or trebling in its rate of new investment without restricting its consumption, unless the entire rise (including the "wages fund" for the domestic labor required to install the new investment) is contributed by foreigners. If the French public were to understand that inflation is the logical outcome of their attempt to raise both investment and consumption at the same time, and that the result of their attempt is only imperfect attainment of the investment goals in an inequitable manner, they might be ready to accept more explicit direct controls. If not, they should then appreciate that it is their preference for an uncontrolled economy, and an archaic system of tax collections, which necessitates a scaling down of their elaborate program for new investment.

Their choice need not, in any event, be the stifling regimentation of thorough-going price controls, rationing and materials allocations. That seems, from the writer's limited experience of life in France to-day, an impracticable approach, whatever may be said for it on theoretical grounds. France does not, as one offsetting consideration, have the trained and understanding bureaucracy which such detailed harnessing of economic life requires. French people, furthermore, in contrast with the British, have been educated in the "patriotic" resistance to such controls

during four years of occupation. Consequently, except in limited sectors, it would not appear feasible to impose the apparatus of what have come, in the recent experience of the war years, to be called " direct controls."

But an approach to the same end, with results of approximately the same magnitude, might be made through the indirect rationing provided by heavy taxation. French State revenues reach a total of roughly one-fifth the national income only when social-security accounts are included. Setting aside the latter receipts, which do not quite equal disbursements on such transfer payments, and also ignoring those Government revenues from estates and other monopolies which have been in the public domain for many years, the total *tax* burden on the French economy is about 15% of the national income. Less than one-third of this amount, or some 5% of the national income, represents direct taxes on individual and business income (always excepting the social-security duties).

Income taxes on corporations are negligible. Taxes on personal incomes yield less than half the proceeds which present rates should provide because of widespread evasion by farmers, professional men and all groups whose income is not packaged neatly in wage or salary checks and subject to taxation by automatic withholding. There is also considerable room for further stiffening in progressive income-tax rates, before the limiting margins set by the need to maintain incentives have been reached. The rates are already high enough to prompt skilful evasion; they could none the less be higher in the upper brackets without duplicating the rates of either the United States or Great Britain. It has, indeed, been estimated that all of the State budget could be balanced, including the sums transferred by the State for investment projects under the Monnet Plan, if the French were to introduce an income-tax structure comparable to that of the United States, *and the taxes were actually collected.* The lax collection of taxes is a chronic problem, going back decades, even centuries, in French history. That is one of the problems which the Queuille Government, learning from the failures of several preceding Governments, hoped to attack again before the end of 1948. The installation of a tight audit control in French tax-collecting machinery, supplemented by greater powers and resourcefulness in obtaining accurate reports from individual taxpayers, would—even without any changes in tax rates—raise tax revenues from the present proportion of 15% of national income up to at least 20%. Yet such correctives imply

a major change in the *mores* of a large segment of the taxpaying community. Accurate personal accounts must be kept, and vigorously checked by enforcement officials. Substantial increases in income-tax proceeds cannot be expected quickly from such reforms.

Eventually, vigorous tax reform, without any further recourse to direct controls, can add greatly to the effective contribution which the French economy is able to make toward its ambitious investment program. The question which has to be faced is the order in which the major steps should occur. If the primary aim is, as it must by all evidence be, to stop the inflation at the earliest possible moment, then a scaling down of the investment program cannot wait until the final effects of the tax reforms are known. The anti-inflation effort will be strengthened, and a salutary indication of the fundamentals of the problem given the French people, if the investment plan is reduced forthwith to the limits of the current French " ability " to pay. Of course, any additional schemes to encourage voluntary savings, by providing securities which embody an inflation hedge, should also be implemented, but investment cannot be prolonged while waiting for the necessarily slow results of such measures.

The reduced investment can, with careful scheduling, be restored gradually as tax proceeds or a revival of voluntary savings make this possible, without undue impairment of the structure of various interdependent projects. The fact that the Monnet Plan administration possesses, so far as the visitor can judge, the best rounded and most competent staff of economists and engineers assembled under any one direction in France should make the actual accomplishment of such cumbersome readjustments relatively painless. As a matter of principle, reductions should occur in those projects which are " long run " in character, that is those which will not lead directly to increased production within a relatively short time. Some replacement of temporary reconstruction can also be postponed. The problems are difficult; the choices discouraging; but the discipline of " living within the French income " (at stable prices) seems inevitable if foreign aid and current production are not to be substantially dissipated in meeting the ephemeral demands of those who have enjoyed the windfall profits of inflation.

Meanwhile, with the tax system being refurbished, one of the chief cumulative forces in the inflation would also be partially corrected. The deteriorating relationships within the income distribution which have prompted round after round of wage

increases, or clever readjustments having that effect, would begin to correct themselves. The correction might be furthered by a capital levy upon the " inflation wealth " which would otherwise perpetuate distortions in the income distribution. No miracle can be expected, of course, but as heavier tax collections reduced conspicuous consumption, and whatever consumer goods remained were somewhat redistributed, one prickling source of discontent should begin to disappear. Labor could conceivably begin to feel that it was sharing alike with other groups in the restraint that low productivity and a need for current investment had imposed upon the French economy.

Political instability, another chronic French problem, but one which has also added cumulative force to the inflation, may not be mellowed by a vigorous tax program, and a curtailment of investment contracts, since those measures will strike hardest at the very groups which form the supporting basis of the " center " Governments. It would be unfair and misleading to suggest the tax reform and reduction of investment as an unblemished panacea. But the great resourcefulness of French politicians may yet prove equal to the task. Demonstration that a tax schedule, and tax collection procedures, comparable to those of the United States (if not of Britain), are inevitable for France, so long as she must depend upon aid from America and other O.E.E.C. countries in bounteous amounts, should not prove impossible. Temporary curtailment of the investment program should not build an impossible opposition for a center Government if it proves feasible to effect most of the reduction by eliminating projects not yet fully under way, while work actually in process tapers off largely through completion of specific projects, and the released labor force moves on to production of goods which will absorb the spending stream instead of to other new investment.

Yet to say that French politicians may be able to " put over " the needed measures without adding to political instability is only part of the case. In the curious circularity which confronts them, they cannot hope to produce a semblance of political stability under a center Government unless they first control the inflation decisively. Political or constitutional questions, as such, must remain outside the scope of this article. It may none the less be relevant to point out, in arguing the political feasibility of the measures suggested here, that continued failure of the center Governments in checking inflation must, almost certainly, invite De Gaulle and probable civil war—a threat which, if clearly explained, should be compellingly persuasive.

One concession that may well have to be made by a successful French Government is a temporary halt in the effort to reduce the public payroll. Barely one-quarter of the total regular budget is, in any event, devoted to the wages and salaries of employees, and of this amount nearly one-half goes into the military establishment. Reducing the civilian staff, instead of making transfers to improve the normal Government services, would be interpreted as "punitive economy" by the groups which furnish much of the political support for the center parties, and could not in any event lower Government disbursement by more than 2 or 3%. The Government may find it expedient to give up many similar minor steps, perhaps continuing as well the relatively high outlays for the military establishment and for overseas colonies, in order to avoid discontent far out of proportion to the budgetary gain, while concentrating on the broad strategy of retrenching investment and enforcing tax collections.

A final cumulative factor in the inflation, which was mentioned earlier in this article, is the rapid expansion of bank credit. A tangled complex of measures has been developed since the war with the aim of shutting off the expansive force of that credit. Of course, with a curtailment in the investment program, and a rise in tax receipts, the demand for new bank credit arising from the financing needs of new projects, and from the Government's overall deficit, would disappear. But this disappearance might still not wholly neutralise the banking system unless other precautions were enforced. The broad basis for preventing the use of bank credit in paying taxes, or in financing investment which has been cut off from State funds, was set forth in the measures announced by the National Credit Council at the end of September 1948.

By placing a limit on the access of banks to new reserve funds, through rediscounting or through sale of Government securities to the Bank of France; by limiting the portion of any new deposits which can be placed in additional private credits; and by widening the Bank of France supervision over large loans to include large discounts—the French have provided a framework of regulations which should be airtight. Further stimulus to the inflation from the banking system can be halted if these new regulations are effectively used. Actual administration of these rules will pose innumerable difficulties, however, and call for stern determination. Yet, when carrying out those credit restrictions alongside an adequate reduction in the investment account, and thorough-going modernisation of the tax-collecting machinery,

the Bank of France may well gain the self-assurance which it could not develop during its previous attempts to cut off the inflation single-handed.

Where, then, does foreign aid fit in? Implicitly it has figured in all of this discussion of corrective action. Probably no French Government could consider taking the steps outlined above if substantial outside help were not arriving to cushion the shock. The investment plan, for example, need not be reduced to zero. Cutting the plan proposed during the autumn of 1948 roughly in half would be ample—even with present taxes—because foreign aid and business savings would make the remaining half possible. Furthermore, the tax reform itself must be made somewhat less controversial when the French leaders, and the French public, are faced with the obvious paradox that the United States, and for that matter all of the European countries contributing aid to France, have already taxed themselves at rates comparable to whatever improved collections might be proposed for France herself.

Aside from these direct effects, there is the critically important incidental result that the aid program has brought France into renewed close trading contacts with all of western Europe. Balance of payments difficulties have been ignored in this article. They are of less fundamental importance in the present crisis of internal French inflation, but they will be of considerable long-run significance. By providing a bridge over which France can again meet her European neighbors, most of whom were dropping away as French inflation disrupted trading relationships, the payments plan of the Organization for European Economic Co-operation will greatly ease French transition pains in re-attaining her normal position in world trade, once the inflation itself shall have been halted.

At that time, and not before, it will also be possible for France to consider the sweeping monetary reconversion which she must have, if the franc is to become again a meaningful unit of account. Such a conversion, and blocking of purchasing power, could only intensify currency flight at the present time; it can come as a healthful purgative once inflation has been stopped. When such a step is taken, the prestige of the French Government undertaking the step will be kept high, and the shock to the French people somewhat lessened, by the realisation that foreign aid is still arriving, to supplement the essential needs of the French economy and the French consumer. Knowing that an adequate, if limited, supply of goods will be continually flowing in, and

witnessing some correction in the price system which has distorted economic relations since the beginning of the war, the French may be able to accept an effective monetary conversion with complacency rather than panic.

To sum up, none of the steps undertaken by any French Government up to December 1948, were powerful enough to strike the major cause of continued inflationary pressure. By forthright reduction of the investment projected under the Monnet Plan, and by energetic tax reform as a preface to later restoration of the investment cuts, the French may still halt their disruptive inflation before a " bust " produces paralysis and chaos. No program which is adequate can be easy; there will be innumerable difficulties in carrying through these measures. But they do appear to offer the only promising outline of a solution to the problem of inflation which has barred the road to French recovery.

R. V. ROSA

Federal Reserve Bank of New York.

MILL AND THE WAGES FUND

MILL'S *Principles of Political Economy* were first published in 1848, a hundred years ago as I write this. Now is, therefore, a (sentimentally) appropriate time for a comment. Summary and laudation are both dull. Discussion is a more worthy tribute; and for discussion we want some theme that has caused puzzlement and roused controversy. What better could there be than the celebrated doctrine of the wages fund?

Before attacking that theme, however, I should like to call attention to an aspect of Mill's view, not on the wages fund, but on capital in general, which has an important bearing on the present situation in Europe. He argues that, when a country has been devastated, for example, by war, the damage is much less than might be thought at first sight, because the structures destroyed would in any event have been worn out and have required replacement in a short time. It is a wasting, not a permanent, asset that has been devastated. "What the enemy has destroyed would have been destroyed in a little time by the inhabitants themselves; the wealth which they so rapidly replace would have needed to be reproduced, and would have been reproduced in any case and probably in as short a time." [1] There is, of course, a very important element of truth in this. Nevertheless, Mill's argument, as he puts it, while it corrects excess pessimism, is itself weighted with excess optimism. For suppose that we start with 1,000 machines, a hundred of which would normally wear out in each of the ten succeeding years. Mill's statement suggests that, were the 1,000 machines destroyed, the whole of the devastation could without any extra effort be made good in ten years. This is not so. For it is very much harder to make a hundred machines in a year when there are no machines, or only a few machines, to help make them than when there are nine hundred available for that. Mill's argument neglects this very important fact. Destruction of three fourths of a country's capital equipment is more than twice as bad as destruction of three eighths of that equipment.

That, however, is a digression. Let us pass to the main theme. Everybody agrees that in any year there is a certain wages flow—a sum of wage goods that are actually handed out to wage-earners in payment for their work during that year. This

[1] *Principles of Political Economy*, Ashley's edition, p. 75.

does not, however, imply that a stock of wage goods of that amount was stored up beforehand, which, without addition or subtraction, must be paid out to labour in that year. Indeed, it says nothing at all about the relation between the wages flow and the previously stored stock of wage goods. A study of that relation may perhaps even now contribute a little towards clarifying our ideas.

Mill defines as "circulating capital" that part of capital, "which, after being once used, exists no longer as capital; is no longer capable of rendering service to production, or at least not the same service nor to the same sort of production." [1] It thus includes materials, and consumable goods held in store ready to be handed over to labour as wages for work. This latter element —we may call it wage-goods capital—is thus a part of circulating capital. Together with "funds which, without forming a part of capital, are paid in exchange for labour, such as the wages of soldiers, domestic servants and other unproductive labour" [2] —these, following Mill's own example, I shall disregard—it constitutes the wages fund. This fund is not always the same. It is likely to grow larger as wealth expands. But at any given moment it is a *predetermined* amount. It is the fund *destined* to maintain labour in production.[3] It is "a sum of wealth unconditionally devoted to the payment of labour." [4] In the passage of the *Dissertations* describing, after he had abandoned it, what his conception of the fund was, Mill says that the whole of it available in any period must actually be paid out in that period; that is to say, the wages flow in any period must be exactly equal to the wages fund. More than the wages fund "the wage earning classes cannot possibly divide among them; that amount and no less they cannot but obtain. So that, the sum to be divided being fixed, the wage of each depends solely on the divisor, the number of participants." [5] Elsewhere, however, he concedes that it is not necessary for the whole of the wages fund available in any period to be used in that period. In bad times a part of it may be "locked up in crowded warehouses." [6] On this version the size

[1] *Principles*, p. 91.

[2] *Principles*, p. 344. Elsewhere (*Essays on some Unsettled Questions of Political Economy*, p. 91) Mill seems to deny that what I have called wage-goods capital is productive of anything. "Wages do not contribute along with labour to the production of commodities, no more than the price of tools contributes along with the tools themselves." But surely the food, etc., that is used to sustain labour when at work corresponds to the tools themselves and *is* productive. The money price (value) of this stock, like the money price of the tools, must not, of course, be counted as a further productive element.

[3] *Ibid.* [4] *Dissertations*, vol. 4, p. 43. [5] *Ibid.* [6] *Principles*, p. 344.

of the fund proper to any year does not rigidly determine the amount of the wages flow. *But on either version it does set a ceiling to it.* Beyond the amount of the fund it is impossible for any agency, government, trade union or anything else to force up the wages of labour as a whole. They may, of course, force up the wages of a particular group of wage-earners, but that can only be at the expense of other groups.

Before inquiring into the validity of this doctrine it is convenient to describe some of the chief applications which Mill makes on it. In the *Principles* he adopts the second of the two versions distinguished above. Working out that version, he supposes that in a depression there is a continuing excess of wages fund over wages flow. In this way the stock of wage goods gets continually larger, till, as it were, the dam bursts. The penned-up water is then released in a wages flow larger, not merely than it was during the period of depression, but larger than its average amount. Thus Mill writes : " When a few years have elapsed without a crisis and no new and tempting channel for investment has been opened in the meantime, there is always found to have occured in these few years so large an increase in capital seeking investment as to have lowered considerably the rate of interest." [1] This, however, is a very dubious thesis. For we have no assurance that during the period of depression the unused part of the wages fund *will* be piled up in a growing store. If, as a result of being offered less aggregate pay, the number of wage-earners at work is reduced, or those employed work fewer hours per day, or less strenuously, the reduction in their pay will be partly offset by a reduction in their output, and the excess of wages fund over wages flow will be *pro tanto* diminished. Moreover, such excess as there is may be consumed by non-wage-earners or handed to wage-earners, not in wages, but through charity, the poor-law or unemployment benefit; in which case it will be consumed by them just as effectively as if it had been handed to them as wages. Thus it is not necessary *a priori* that a piling up of wage goods shall have taken place. Nor does the fact that the rate of interest in periods of depression is low prove *a posteriori* that there has been such a piling up. For we know that in these periods the demand for investment is abnormally low; and this would by itself make interest rates low without supply having to be abnormally high. Whether there is a piling up of wage capital in bad times cannot, therefore, be determined by general reasoning; appeal must be made to records of fact. These unfortunately are very scanty.

[1] *Principles*, p. 641–2.

That immediately after the breaking of a boom stocks pile up is, indeed, evident. For the outgoing stream of wage goods passing to work-people is reduced, while, since the first cut in employment is likely to be made in the earliest stages of production, and not in respect of partially finished goods that are nearly complete, the inflowing stream into store is not at once affected. But this does not tell us what happens over the main body of a representative period of depression. On the whole, the evidence is unfavourable to Mill's thesis. As a depression proceeds, "the accumulated stocks of goods carried over from the preceding period of prosperity are gradually disposed of. Even when consumption is small, manufacturers and merchants can reduce their stocks of raw material and finished wares by filling orders chiefly from what is on hand, and confining purchases to the small quantities needed to keep full assortments." [1] Thus, in spite of the fact that the consumption of wage-earners is lower than it was before, stocks of consumable commodities go on falling until after the revival has begun. More generally, booms are characterised by the "production of goods in excess of the current rate of consumption, with consequent accumulation of stocks," and depressions by "curtailment of production below current consumption with consequent depletion of stocks." [2] If this view is correct, the later part of the period of depression is responsible, not only for no accumulation of stocks of consumable goods, but for an actual reduction in the stocks left over from the preceding period of boom.[3]

Apart from this problem of industrial fluctuations Mill makes use of the wages-fund doctrine in connection with three principal matters. In one of its applications it led him to his highly

[1] Cf. Mitchell, *Business Cycles*, pp. 565–6; cf. also *Business Cycles and Unemployment*, p. 8.

[2] Persons, Hardy and others. *The Problem of Business Forecasting*, p. 305.

[3] A certain confusion on this matter arises, I think, from the fact that the term "capital" is sometimes used to cover people's money claims, *e.g.*, on the banks. Thus Mill himself speaks in one place of the capital to finance recovery being drawn in part "from the deposits in banks" (*Principles*, p. 643). It may well be that in times of depression business men and others pile up "savings deposits" which are afterwards drawn on, or, in other words, that in these times the income velocity of money is low and in times of activity high. Insofar as there are stores of wage goods available to be drawn on, drawing on deposits and banks may well be a chief means by which, in periods of activity, they are called into play. But this in no way implies—and, unless real circulating capital and holdings of money claims are confused cannot be supposed to imply—that in periods of depression, characterised by large savings deposits, the stocks of wage goods available to be drawn on are larger than they are in times of activity, characterised by small savings deposits.

paradoxical "fourth fundamental proposition concerning capital"; that "a demand for commodities is not a demand for labour." "What supports and employs productive labour is the capital expended in setting it to work, and not the demand of purchasers for the produce of the labour when completed." [1] This entails that, if I spend £100 on the direct hire of labour, I benefit labour in a way that I do not if I spend the same sum on a commodity—even though no part of the price of the commodity goes to the management. This is clearly wrong. No doubt, if in buying for consumption a labour-made commodity, I make my payment when the commodity is finished and if in buying labour direct I make it when the labour does its work, the second plan is more advantageous to labour because on the first it has to borrow at interest while the commodity is being made. But, if I pay for the commodity in advance, or if, hiring labour direct, I delay payment for the appropriate length of time, the two plans affect labour in exactly the same way. In practice the payments to labour are usually dated differently and this *does* affect the advantage labour gets. But with the same dating it is immaterial which plan is adopted.[2] Contrary to Mill's view, a demand for commodities *is* a demand for labour.

A second application of the wages-fund doctrine has to do with the consequences of government borrowing when the borrowing is of such a sort that it does not lead to any change in the quantity of employment. If what the Government takes is derived from a foreign loan, or, being raised at home, comes from what would have been lent abroad or from what would not have come into existence —" would not have been saved at all,"—or from what, if saved, would have been wasted in unproductive enterprises, then, Mill agrees, the aggregate wages of work-people will not be affected.[3] Otherwise, he holds, what the Government takes must be abstracted from funds either engaged in production or destined to be employed in it; so that its diversion from that purpose is equivalent to taking it from the wages of the labouring classes.[4] Moreover, according to him, if the rate of interest rises, this indicates that the escape channels are not being used and so that labour is in fact being mulcted. This is a hard saying. The most obvious answer is that the "capital," which, by the Government's borrowing, private persons are prevented from spending on labour, will, in general, be devoted to that purpose by the Government itself; so that *prima facie* labour suffers no damage. But a deeper

[1] *Principles*, p. 79.
[2] Cf. Marshall, *Principles*, fifth edition, p. 828.
[3] *Principles*, p. 874.
[4] *Ibid.*, p. 873.

analysis is wanted. When Government raises money, whether by borrowing or by taxing, and uses it for a public purpose, a war or anything else, then, provided that the volume of employment is unaffected, it thereby diverts productive power from other uses to serve that purpose. Let us—as is proper when the Government requires extra resources for waging a war—ignore any benefit that the community may get from its use of these resources. Then there will be less total output of consumption goods and investment goods together available for the community as a whole. By sufficient cuts, however, in investment and in the consumption of non-wage-earners commonsense affirms—though the strict wages-fund doctrine denies—that the consumption of wage-earners might be maintained. It *might* even—and that apart from foreign borrowing—be increased. That, indeed, is very unlikely. The chances are that wage-earners as a whole will find the prices of the things they buy raised more than in proportion to their money wages. But there is no *necessity* for that to happen.

The last application of the wages-fund doctrine on which I shall comment is concerned with the consequences for labour of the employing classes' deciding in some one year to switch over so much labour from making consumption goods to maintain stocks to making capital goods. This decision does not, of course, entail any addition to net saving on their part. Mill assumes further that it does not affect the total number of work-people in employment. He postulates that employers, having control of a certain wage fund, say nine hundred quarters of wheat, available to pay over to their work-people—a fixed number—in the next year, decide to require from them in return a machine, instead of, as hitherto, a thousand quarters of wheat, of which normally, say a hundred quarters would have accrued to and been consumed by themselves in payment for the service of management, and nine hundred put back into the wages fund to keep it at its original level. It follows that, while this decision does not affect the work-people's wages this year, next year there are nine hundred quarters less wages fund. Therefore wage-earners must in that year be injured. This conclusion is mitigated by the fact that, on account of the new machine, there is a slight addition to the yield of wheat, part of which is likely to be turned into the wages fund. Thus that fund for the second year is not less by nine hundred quarters than in the first, but by a little less than that. This, however, is a trivial point. In the main, the extent of the injury to work-people depends on what proportion of men pre-

viously engaged in making wheat are switched over to making machines. Since investment is normally only a small part of total output and, consequently, the switch only a very small part of it, the damage per head to wage-earners brought about in this way in any year is likely to be very small. Still that there will be some damage to them—if we like, we may say some forced saving imposed on them—is clear. This could only be avoided through the non-wage-earning classes cutting their consumption in a measure large enough to provide wage goods at the old rate for all work-people engaged in making the new machine. That, even though we allow—what again on the strict wages-fund doctrine we ought not to do—that it would be effective, entails net saving on their part, which, for the purposes of this argument, we are assuming that they do not undertake. So much for the second year. In the third and subsequent years, provided that the same number of work-people are at work, they produce a little more than they did originally, on account of having the machine to work with. Thus they—and along with them non-wage-earners also—are enabled to consume a little more in compensation for their having been obliged in the second year to consume less so as to enable the machine to be made. All this follows logically *provided that the wages-fund doctrine is correct.*

After these illustrations of the way in which Mill applied his doctrine let us pass to the doctrine itself. It avers, as we have seen, that the wages flow in any year has to be equal to the predetermined wages fund, subject only to the limitation that, on one version of it, a part of the fund, instead of appearing in the flow, may be " locked up in crowded warehouses." Leaving this limitation aside, we encounter at once the objection that non-wage-earners, employers or others, when the wages fund is given, may, if they choose, make the wages flow larger or smaller by varying the amounts of their own consumption; by, for example, in any year cutting down their consumption and handing over what they would have consumed in extra real wages to work-people.

This objection is plainly fatal. How was it that Mill prior to his recantation failed to see the force of it? In one passage, indeed, in the *Principles* he did do that. In arguing against the view that, if the richer classes cut their spending and make investments instead, there may be no market for the output due to these investments, he wrote: " When these classes turn their income into capital, they do not thereby annihilate their power of consumption; they do but transfer it from themselves to the labourers

to whom they give employment."[1] What is this but to allow that their action adds to the wages flow, which is, therefore, not pre-determined? In general, however, Mill does not apparently allow that this sort of thing may happen. What can have made him blind to it? Possibly he may have been misled by the sharp distinction which he drew between the wages of labour and the wages of managers—and, it would logically follow, the earnings of shareholders. Work-people's wages are paid, he held, in advance of labour's yield, out of what has been previously accumulated; the earnings of managers "are not paid in advance out of capital like the wages of all other labour, but merge in the profit and are not realised until the production is completed."[2] Now, certainly particular capitalists might have in effect to borrow goods from shops in order to pay their labourers, and would not need to in order to pay their managers. But, granted—Mill, as we shall see in a moment, tacitly assumes this—that output only emerges once a year, all consumption by managers no less than by labourers has to come out of stock previously accumulated. Unless managers own such stocks, *they* have to borrow from shops or, what comes to the same thing, to borrow money with which to buy them, just as the capitalists have to do for their labourers. The different dating of the several payments is, therefore, in the present connection without significance; though, indeed, in the event of a catastrophe labourers, being paid synchronously with their work, can be sure that they *will* be paid for it in a way that managers and shareholders cannot be.

Eventually, of course, Mill did see the force of our objection; and, in consequence, renounced his wages-fund doctrine altogether. In his reply to Thornton in 1869 he wrote "Is there such a thing as a wages fund in the sense here employed? Exists there any fixed amount which, and neither more nor less than which, is destined to be employed in wages?"[3] And he answers, No. He concedes that non-wage-earners can make the amount of wages paid greater or less by varying the amount of their own consumption. Therefore there is no pre-determined wages fund.

There is, however, in the way of the wages-fund doctrine a difficulty more deep-seated than this; one that would still be there even though the doctrine were so modified as to take account of what has just been said. This has to do with a factual premise which underlies Mill's analysis. In working out that analysis he

[1] *Principles*, p. 68.
[2] *Essays on some Unsettled Questions in Political Economy*, p. 108.
[3] *Dissertations*, vol. 4, p. 44.

was influenced by the accidents that, when he wrote, the predominant part of wage goods consisted of food, and that the predominant part of this food became available, not continuously, but in annual jets at English harvest time. In these conditions immediately after harvest the wages fund consists of the harvest yield minus such part of it as non-wage-earners elect to keep for themselves. As the year proceeds, it dwindles, being gradually converted into an equivalent value of agricultural goods in process. In the middle of the year it is half what it was at the beginning; at the end it is nothing; and then with the new harvest, Phœnix-like, it reconstitutes itself. As things now are, this conception is highly unrealistic. No doubt, some sorts of wage goods do emerge ready for use, all of them at the same time, in large jets once a year. But for a great many the inflow is more or less continuous. It is more proper today to assume that all of them, rather than none of them, become available in a nearly constant stream. At all events, it is worth while enquiring what will follow if we make that assumption. Let us suppose then that there are so many work-people altogether and that, for the average man, the interval between his work and its emergence in output is so many days. It is plain that before operations under this system can start there must be in existence a stock of wage goods sufficient to sustain all these work-people until the flow of the output due to them has begun and some of them until it has reached the (constant) level that is proper to it. Until that has happened the initial stock of wage goods is in course of being transformed into a stock of "goods in process"; and, when it has happened, the stock, *qua* stock of wage goods, has disappeared. Henceforward what is needed for wages is provided by the continuous inflow of newly-made wage goods. Thus, while a capital of goods in process is always essential, there is no need for any stock of wage goods at all—for any wages fund, pre-determined or otherwise! [1]

Of course, the picture sketched above is an idealised one. Wage goods, when finished on the farms or in the factories, do not pass immediately into the hands of consumers. Besides the machine of process there is a machine of distribution—a pipe-

[1] In consequence of this, it may be remarked in passing, the conclusion reached at the bottom of p. 176 about the effects of a decision by employers to switch labour from making wage goods for stock to making a machine, without themselves undertaking any savings, is not applicable to actual conditions. With continuous production, instead of production in annual jets, wage-earners need not suffer damage in any year. All that need happen is that, from the second year onwards, the stock of capital is larger than it used to be by one machine and smaller by an equivalent value of wage goods held in store.

line—; and there are always finished goods, wage goods and others, standing in that. Moreover, besides the pipe-line stocks there are pretty sure in normal times to be some further emergency stocks held against unforeseen disasters and unforeseen opportunities. All these constitute, along with the content of the machine of process, the community's working capital. The sum of the stocks of wage goods held in these several ways has, of course, in any given period some average arithmetical relation to the annual or monthly wages flow. But it is in no sense a determinant of—it would be truer to say that it is determined by—that flow. The wages fund as Mill conceived it, is thus sunk without trace.

But the wages flow remains. In any time interval the principal element in it is the inflow of wage goods from the machine of process, through the machine of distribution, into consumption. It may be added to or subtracted from according as the non-wage-earners purchase and consume a smaller or a larger quantity of wage goods. It can be inflated, too, by borrowing from abroad; and by borrowing from pipe-line stocks and emergency stocks. Converse processes are available for deflating the wages flow. If, throughout, employment is held fixed, this is all. Variations in the wages flow are simply reflected in equi-proportionate variations in the real rate of wages. An increase in the wages flow may, however, well be partly taken out in an increase, and a decrease in a decrease, of employment. In this case two things happen. First a new element making for variations in the wages flow is introduced. For during periods of expansion wage goods are set free from the payment of unemployment benefit in respect of men ceasing to be unemployed; and conversely in depressions. This enables the wages flow to vary more widely than it would do otherwise. Secondly, as the case may be, national income will be expanded or contracted. This allows expansions and contractions in investment to take place without being accompanied by equivalent contractions or expansions in consumption. But to carry this analysis further would be to trespass beyond my title—Mill and the Wages Fund.

A. C. PIGOU

King's College,
Cambridge.

INTERNATIONAL FACTOR-PRICE EQUALISATION ONCE AGAIN

1. Introduction

My recent paper [1] attempting to show that free commodity trade will, under certain specified conditions, inevitably lead to complete factor-price equalisation appears to be in need of further amplification. I propose therefore (1) to restate the principal theorem, (2) to expand upon its intuitive demonstration, (3) to settle the matter definitively by a brief but rigorous mathematical demonstration, (4) to make a few extensions to the case of many commodities and factors, and finally (5) to comment briefly upon some realistic qualifications to its simplified assumptions.

I cannot pretend to present a balanced appraisal of the bearing of this analysis upon interpreting the actual world, because my own mind is not made up on this question: on the one hand, I think it would be folly to come to any startling conclusions on the basis of so simplified a model and such abstract reasoning; but on the other hand, strong simple cases often point the way to an element of truth present in a complex situation. Still, at the least, we ought to be clear in our deductive reasoning; and the elucidation of this side of the problem plus the qualifying discussion may contribute towards an ultimate appraisal of the theorem's realism and relevance.

2. Statement of the Theorem

My hypotheses are as follows:—

1. There are but two countries, America and Europe.
2. They produce but two commodities, food and clothing.
3. Each commodity is produced with two factors of production, land and labour. The production functions of each commodity show "constant returns to scale," in the sense that changing all inputs in the same proportion changes output in that same proportion, leaving all "productivities"

[1] "International Trade and the Equalisation of Factor Prices," Economic Journal, Vol. LVIII, June, 1948, pp. 163–184. I learn from Professor Lionel Robbins that A. P. Lerner, while a student at L.S.E., dealt with this problem. I have had a chance to look over Lerner's mimeographed report, dated December 1933, and it is a masterly, definitive treatment of the question, difficulties and all.

essentially unchanged. In short, all production functions are mathematically "homogeneous of the first order" and subject to Euler's theorem.

4. The law of diminishing marginal productivity holds: as any one input is increased relative to other inputs, its marginal productivity diminishes.

The commodities differ in their "labour and land intensities." Thus, food is relatively "land using" or "land-intensive," while clothing is relatively "labour-intensive." This means that whatever the prevailing ratio of wages to rents, the optimal proportion of labour to land is greater in clothing than in food.

6. Land and labour are assumed to be qualitatively identical inputs in the two countries and the technological production functions are assumed to be the same in the two countries.

7. All commodities move perfectly freely in international trade, without encountering tariffs or transport costs, and with competition effectively equalising the market price-ratio of food and clothing. No factors of production can move between the countries.

8. Something is being produced in both countries of both commodities with both factors of production. Each country may have moved in the direction of specialising on the commodity for which it has a comparative advantage, but it has not moved so far as to be specialising completely on one commodity.[1]

All of this constitutes the hypothesis of the theorem. The conclusion states:—

> Under these conditions, real factor prices must be exactly the same in both countries (and indeed the proportion of inputs used in food production in America must equal that in Europe, and similarly for clothing production).

Our problem is from now on a purely logical one. Is "If H, then inevitably C" a correct statement? The issue is not whether C (factor-price equalisation) will actually hold; nor even whether H (the hypothesis) is a valid empirical generalisation. It is whether C can fail to be true when H is assumed true. Being a

[1] Actually we may admit the limiting case of "incipient specialisation," where nothing is being produced of one of the commodities, but where it is a matter of indifference whether an infinitesimal amount is or is not being produced, so that price and marginal costs are equal.

logical question, it admits of only one answer: either the theorem is true or it is false.

One may wonder why such a definite problem could have given rise to misunderstanding. The answer perhaps lies in the fact that even so simple a set-up as this one involves more than a dozen economic variables: at least four inputs for each country, four marginal productivities for each country (marginal productivity of American labour in food, of American land in food . . .), two outputs for each country, the prices of the two commodities, the price in each country of the two inputs, the proportions of the inputs in different lines of production, and so forth. It is not always easy for the intellect to move purposefully in a hyper-space of many dimensions.

And the problem is made worse by the fact, insufficiently realised, that constant returns to scale is a very serious limitation on the production functions. A soon as one knows a single " curve " on such a surface, all other magnitudes are frozen into exact quantitative shapes and cannot be chosen at will. Thus, if one knows the returns of total product to labour working on one acre of land, then one already knows everything: the marginal productivity schedule of land, all the iso-product curves, the marginal-rate-of-substitution schedules, etc. This means one must use a carefully graduated ruler in drawing the different economic functions, making sure that they are numerically consistent in addition to their having plausible qualitative shapes.

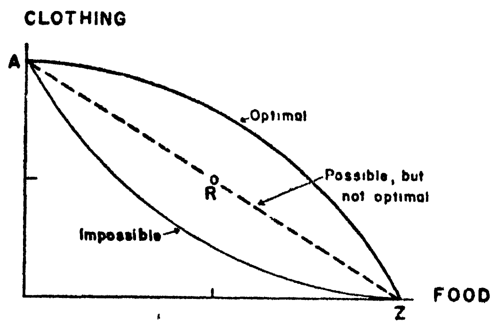
3. Intuitive Proof

In each country there is assumed to be given totals of labour and land. If all resources are devoted to clothing, we get a certain maximum amount of clothing. If all are devoted to food production, we get a certain maximum amount of food. But what will happen if we are willing to devote only part of all land and part of total labour to the production of food, the rest being used in clothing production? Obviously, then we are in effect sacrificing some food in order to get some clothing. The iron law of scarcity tells us that we cannot have all we want of both goods, but must ultimately give up something of one good in getting some of another.

In short there is a best " production-possibility," or " transformation " curve showing us the maximum obtainable amount of one commodity for each amount of the other. Such a production-possibility schedule was drawn up for each country in Figure 1

of my earlier article. And in each case it was made to be a curve *convex* from above, so that the more you want of any good the greater is the cost, at the margin, in terms of the other good. This convexity property is very important and is related to the law of diminishing marginal productivity. Few readers had any qualms about accepting convexity, but perhaps some did not realise its far-reaching implications in showing why the factor-price equalisation theorem had to be true. I propose, therefore, to show why the production-possibility curve must obviously be convex (looked at from above).[1]

To show that convexity, or increasing relative marginal costs must hold, it is sufficient for the present purpose to show that concavity, or decreasing marginal costs, involves an impossible contradiction. Now at the very worst, it is easily shown we can move along a straight-line opportunity cost line between the



two axes. For suppose we agree to give up half of the maximum obtainable amount of food. How much clothing can we be sure of getting? If we send out the crudest type of order : " Half of all labour and half of all land is to be shifted to clothing production," we will (because of the assumption of constant returns to scale) *exactly halve* food production; and we will acquire *exactly half* of the maximum amount of clothing produceable with all resources. Therefore, we end up at a point, *R*, exactly half-way between the limiting points *A* and *Z*. Similarly, if we decide to give up 10, 20, 30 or 90% of the maximum amount of food produceable, we can give out crude orders to transfer exactly 10, 20, 30 or 90% of *both* inputs from food to clothing. Because of constant returns to scale, it follows that we can be sure of getting 90, 80, 70 or 10% of maximum clothing.

[1] I am indebted for this line of reasoning to my colleague at M.I.T., Professor Robert L. Bishop, who for some years has been using it on beginning students in economics, with no noticeable disastrous effects. This proof is suggestive only, but it could easily be made rigorous.

In short, by giving such crude down-the-line orders that transfer both resources *always in the same proportion*, we can at worst travel along a straight line between the two limiting intercepts. Any concave curve would necessarily lie inside such a constant-cost straight line and can therefore be ruled out : hence decreasing (marginal, opportunity) costs are incompatible with the assumption of constant returns to scale.

But of course we can usually do even better than the straight-line case. A neophyte bureaucrat might be satisfied to give crude down-the-line orders, but there exist more efficient ways of giving up food for clothing. This is where social-economist (or "welfare economist") can supplement the talents of the mere technician who knows how best to use inputs in the production of any one good and nothing else. There are an infinity of ways of giving up, say, 50% of food : we may simply give up labour, or simply give up land, or give up constant percentages of labour and land, or still other proportions. But there will be only one best way to do so, only one best combination of labour and land that is to be transferred. Best in what sense? Best in the sense of getting for us the maximum obtainable amount of clothing, compatible with our pre-assigned decision to sacrifice a given amount of food.

Intuition tells us that, qualitatively, we should transfer a larger proportion of labour than of land to clothing production. This is because clothing is the labour-intensive commodity, by our original hypothesis. This means that the proportion of labour to land is actually declining in the food line as its production declines. What about the proportion of labour to land in clothing production? At first we were able to be generous in sparing labour, which after all was not "too well adapted" for food production. But now, when we come to give up still more food, there is less labour left in food production relative to land; hence, we cannot contrive to be quite so generous in transferring further labour to clothing production. As we expand clothing production further, the proportion of labour to land must also be falling in that line; but the labour–land ratio never falls to as low as the level appropriate for food, the land-intensive commodity.[1]

[1] Some readers may find it paradoxical that—with a fixed ratio of total labour to total land—we nevertheless lower the ratio of labour to land *in both industries* as a result of producing more of the labour-intensive good and less of the other. Such readers find it hard to believe that men's wages and women's wages can both go up at the same time that average wages are going down. They forget that there is an inevitable shift in the industries' weights used to compute the

Intuition tells us that by following an optimal pattern which recognises the difference in factor intensities of the two goods, we can end up on a production possibility curve that is bloated out beyond a constant-cost straight line : in short, on a production possibility curve that is convex, obeying the law of increasing marginal costs of one good as it is expanded at the expense of the other good. Or to put the same thing in the language of the market-place: as the production of clothing expands, upward pressure is put on the price of the factor it uses most intensively, on wages relative to land rent. An increase in the ratio of wages to rent must in a competitive market press up the price of the labour-intensive commodity relative to the land-intensive commodity.

This one-directional relationship between relative factor prices and relative commodity prices is an absolute necessity, and it is vital for the recognition of the truth in the main theorem. Let me elaborate therefore upon the market mechanism bringing it about. Under perfect competition, everywhere within a domestic market there will be set up a uniform ratio of wages to rents. In the food industry, there will be one, and only one, optimal proportion of labour to land; any attempt to combine productive factors in proportions that deviate from the optimum will be penalised by losses, and there will be set up a process of corrective adaptation. The same competitive forces will force an adaptation of the input proportion in clothing production, with equilibrium being attained only when the input proportions are such as to equate exactly the ratio of the physical marginal productivities of the factors (the "marginal rate of substitution" of labour for land in clothing production) to the ratio of factor prices prevailing in the market. The price mechanism has an unconscious wisdom. As if led by an invisible hand, it causes the economic system to move out to the optimal production-possibility curve. Through the intermediary of a common market factor–price ratio, the marginal rates of substitution of the factors become the same in both industries. And it is this marginal condition which intuition (as well as geometry and mathematics) tells us prescribes the optimal allocation of resources so as to yield maximum output. Not only does expanding clothing production result in the earlier described

average-factor ratio. Really to understand all this the reader must be referred to the Edgeworth box-diagram depicted in W. F. Stolper and P. A. Samuelson, "Protection and Real Wages," *Review of Economic Studies*, Vol. IX (1941), pp. 58–73.

qualitative pattern of dilution of the ratio of labour to land in both occupations; more than that, a price system is one way of achieving the exactly optimal quantitative degree of change in proportions.

I have established unequivocally the following facts :

> *Within any country :* (a) *a high ratio of wages to rents will cause a definite decrease in the proportion of labour to land in both industries ;* (b) *to each determinate state of factor proportion in the two industries there will correspond one, and only one, commodity price ratio and a unique configuration of wages and rent ; and finally,* (c) *that the change in factor proportions incident to an increase in* $\frac{wages}{rents}$ *must be followed by a one-directional increase in clothing prices relative to food prices.*

An acute reader may try to run ahead of the argument and may be tempted to assert : " But all this holds for one country, as of a given total factor endowment. Your established chain of causation is only from factor prices (and factor proportions) to commodity prices. Are you entitled to reverse the causation and to argue that the same commodity-price ratio must—even in countries of quite different total factor endowments—lead back to a common unique factor-price ratio, a common unique way of combining the inputs in the food and clothing industries, and a common set of absolute factor prices and marginal productivities ? "

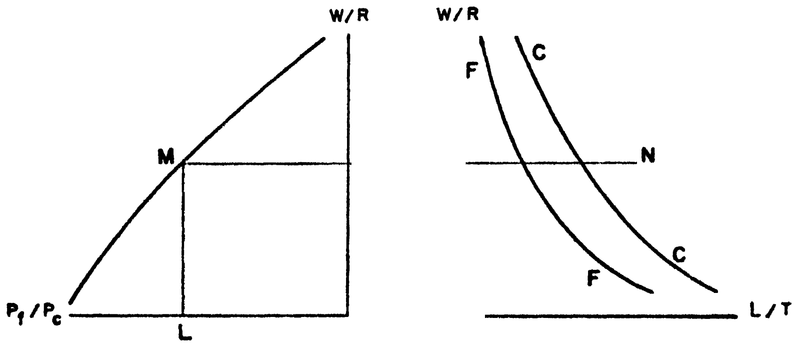
My answer is yes. This line of reasoning is absolutely rigorous. It is only proportions that matter, not scale. In such a perfectly competitive market each small association of factors (or firm, if one prefers that word) feels free to hire as many or as few extra factors as it likes. It neither knows nor cares anything about the totals for society. It is like a group of molecules in a perfect gas which is everywhere in thermal equilibrium. The molecules in any one small region behave in the same way regardless of the size of the room around them. A sample observed in the middle of a huge spherical room would act in the same way as a similar sample observed within a small rectangular room. Similarly, if we observe the behaviour of a representative firm [1] in one country it will be exactly the same in all essentials as a representative firm taken from some other country—regardless of

[1] The representative firm concept is in the case of homogeneous production functions not subject to the usual difficulties associated with the Marshallian concept; in this case, it should be added, the " scale " of the firm is indeterminate and, fortunately, irrelevant.

the difference in total factor amounts and relative industrial concentration—provided only that factor-price ratios are really the same in the two markets.

All this follows from the italicised conclusion reached just above, especially from (*c*) taken in conjunction with (*a*) and (*b*).

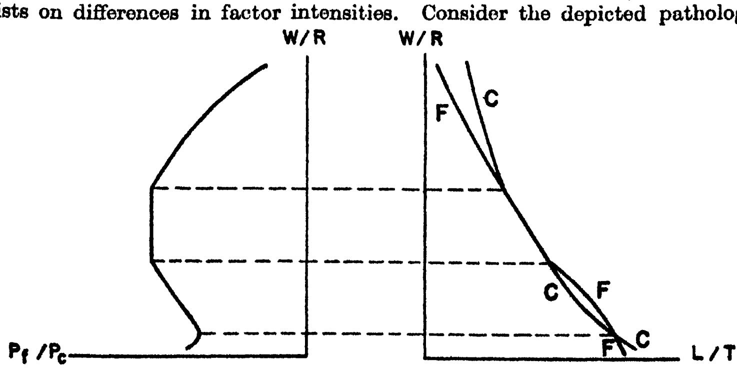
This really completes the intuitive demonstration of the theorem. The same international commodity–price ratio, must —so long as both commodities are being produced and priced at marginal costs—enable us to infer backwards a unique factor–price ratio, a unique set of factor proportions, and even a unique set of absolute wages and rents.



All this is summarised in the accompanying chart. On the right-hand side I have simply duplicated Figure 2 of my earlier paper. On the left-hand side I have added a chart showing the one-directional relation of commodity prices to factor prices.[1] As

[1] The left-hand curve is drawn in a qualitatively correct fashion. Actually its exact quantitative shape is determined by the two right-hand curves; but the chart is *not* exact in its quantitative details.

We may easily illustrate the importance of point (5) of our hypothesis, which insists on differences in factor intensities. Consider the depicted pathological



case which does not meet the requirements of our hypothesis, and in which factor intensities are for a range identical, and in still other regions food becomes the labour-intensive good. The resulting pattern of commodity prices does *not* necessarily result in factor-price equalisation. Cf. p. 175, n. 1 of my earlier article.

wages fall relative to rents the price of food is shown to rise relative to clothing in a monotonic fashion. The accompanying chart applies to either country and—so long as neither country is specialising completely—its validity is independent of their differing factor endowments. It follows that when we specify a common price ratio (say at L), we can move backward unambiguously (from M to N, etc.) to a common factor–price ratio and to a common factor proportion set-up in the two countries.

4. Mathematical Proof

Now that the theorem has been demonstrated by common-sense reasoning, let me confirm it by more rigorous mathematical proof. The condition of equilibrium can be written in a variety of ways, and can be framed so as to involve more than a dozen equations. For example, let me call America's four marginal physical productivities—of labour in food, of land in food, of labour in clothing, of land in clothing—a, b, c and d. I use Greek letters—α, β, γ, δ—to designate the corresponding marginal productivities in Europe. Then we can end up with a number of equilibrium expressions of the form

$$\frac{a}{b} = \frac{c}{d}, \frac{\alpha}{\beta} = \frac{\gamma}{\delta}, \frac{a}{c} = \frac{\alpha}{\gamma}, \ . \ . \ . \ \text{etc.}$$

A number of economists have tortured themselves trying to manipulate these expressions so as to result in $a = \alpha$, etc., or at least in $\frac{a}{b} = \frac{\alpha}{\beta}$, etc. No proof of this kind is possible. The essential thing is that these numerous marginal productivities are by no means independent. Because proportions rather than scale are important, knowledge of the behaviour of the marginal productivity of labour tells us exactly what to expect of the marginal-productivity schedule of land. This is because increasing the amount of labour with land held constant is equivalent to reducing land with labour held constant.[1]

[1] J. B. Clark recognised in his *Distribution of Wealth* that the "upper triangle" of his labour-marginal-productivity diagram must correspond to the "rectangle" of his other-factors diagram. But his draughtsman did *not* draw the curve accordingly! This is a mistake that Philip Wicksteed in his *Co-ordination of the Laws of Distribution* (London School of Economics Reprint) could not have made. Clark, a believer in Providence, was unaware of the blessing—in the form of Euler's theorem on homogeneous functions—that made his theory possible. Wicksteed, a man of the cloth, appreciated and interpreted the generosity of Nature. Cf. also F. H. Knight, *Risk, Uncertainty and Profit*, ch. IV, for a partial treatment of these reciprocal relations. G. J. Stigler, *Production and Distribution Theories: the Formative Period*, gives a valuable treatment of Wicksteed's theory as exposited by Flux and others.

Mathematically, instead of writing food production, F, as any joint function of labour devoted to it, L_f, and of land, T_f, we can write it as

$$F = F(L_f, T_f) = T_f f\left(\frac{L_f}{T_f}\right) \quad . \quad . \quad . \quad (1)$$

where the function f can be thought of as the returns of food on one unit of land, and where the number of units of land enters as a scale factor. The form of this function is the same for both countries; and there is, of course, a similar type of function holding for cloth production, C, in terms of L_c and T_c namely

$$C = C(L_c, T_c) = T_c\, c\left(\frac{L_c}{T_c}\right) \quad . \quad . \quad . \quad (2)$$

It is easy to show mathematically, by simple partial differentiation of (1), the following relations among marginal physical productivities

$$\text{M.P.P. labour in food} = \frac{\partial F}{\partial L_f} = f'\left(\frac{L_f}{T_f}\right)$$

where f' represents the derivative of f and depicts the schedule of marginal product of labour (working on one unit of land). This must be a declining schedule according to our hypothesis of diminishing returns, so that we must have

$$f''\left(\frac{L_f}{T_f}\right) < 0.$$

By direct differentiation of (1), or by use of Euler's theorem, or by use of the fact that the marginal product of land can also be identified as a rent residual, we easily find that

$$\text{M.P.P. land in food} = \frac{\partial F}{\partial T_f} = f\left(\frac{L_f}{T_f}\right) - \frac{L_f}{T_f} f'\left(\frac{L_f}{T_f}\right) = g\left(\frac{L_f}{T_f}\right)$$

where g is the name for the rent residual. It is easy to show that

$$g'\left(\frac{L_f}{T_f}\right) = -\frac{L_f}{T_f} f''\left(\frac{L_f}{T_f}\right).$$

By similar reasoning, we may write the marginal productivity of land in clothing production in its proper relation to that of labour

$$\text{M.P.P. labour in clothing} = \frac{\partial C}{\partial L_c} = c'\left(\frac{L_c}{T_c}\right)$$

$$\text{M.P.P. land in clothing} = \frac{\partial C}{\partial T_c} = c\left(\frac{L_c}{T_c}\right) - \frac{L_c}{T_c} c'\left(\frac{L_c}{T_c}\right) = h\left(\frac{L_c}{T_c}\right)$$

$$h'\left(\frac{L_c}{T_c}\right) = -\frac{L_c}{T_c} c''\left(\frac{L_c}{T_c}\right)$$

The art of analysis in these problems is to select out the essential variables so as to reduce our equilibrium equations to the simplest form. Without specifying which country we are talking about, we certainly can infer from the fact that something of both goods is being produced with both factors the following conditions :—

> Real wages (or labour marginal " value " productivities) must be the same in food and clothing production when expressed in terms of a common *measure*, such as clothing; the same is true of real rents (or land marginal " value " productivities). Or

(food price) (M.P.P. labour in food)
= (clothing price) (M.P.P. labour in clothing)

(food price) (M.P.P. land in food)
= (clothing price) (M.P.P. land in clothing)

which can be written in terms of previous notation [1] as

$$\left(\frac{P_f}{P_c}\right)f'\left(\frac{L_f}{T_f}\right) - c'\left(\frac{L_c}{T_c}\right) = 0$$

$$\left(\frac{P_f}{P_c}\right)\left[f\left(\frac{L_f}{T_f}\right) - \frac{L_f}{T_f}f'\left(\frac{L_f}{T_f}\right)\right] - \left[c\left(\frac{L_c}{T_c}\right) - \frac{L_c}{T_c}c'\left(\frac{L_c}{T_c}\right)\right] = 0.$$

Now these are two equations in the three variables $\frac{L_f}{T_f}$, $\frac{L_c}{T_c}$, and $\frac{P_f}{P_c}$. If we take the latter price ratio as given to us by international-demand conditions, we are left with *two* equations to determine the *two* unknown factor proportions. This is a solvent situation, and we should normally expect the result to be determinate.

But a purist might still have doubts : " How do you know that these two equations or schedules might not twist around and intersect in multiple equilibria ? " Fortunately, the answer is simple and definite. On our hypothesis, any equilibrium configuration turns out to be absolutely unique. We may leave to a technical footnote the detailed mathematical proof of this fact.[2]

[1] In terms of our earlier $a, b, \ldots, \alpha, \beta \ldots$, these equations are of the form

$$\frac{P_f}{P_c}a = c, \ \frac{P_f}{P_c}b = d, \text{ etc.}$$

[2] The Implicit Function Theorem tells us that two suitably continuous

5. Multiple Commodities and Factors

Adding a third or further commodities does not alter our analysis much. If anything, it increases the likelihood of complete factor–price equalisation. For all that we require is that at least *two* commodities are simultaneously being produced in both countries and then our previous conclusion follows. If we add a third commodity which is very much like either of our present commodities, we are not changing the situation materially. But if we add new commodities which are more extreme in their labour–land intensities, then we greatly increase the chance that two regions with very different factor endowments can still come into complete factor–price equalisation. A "queer" region is not penalised for being queer if there is queer work that needs doing.

I do not wish at this time to go into the technical mathematics of the n commodity, and r factor case. But it can be said that: (1) so long as the two regions are sufficiently close together in factor proportions, (2) so long as the goods differ in factor intensities, and (3) so long as the number of goods, n, is greater than the number of factors, r, we can hope to experience complete factor–price equalisation. On the other hand, if complete specialisation takes place it will do so for a whole collection of goods, the dividing line between exports and imports being a variable one depending upon reciprocal international demand (acting on factor prices) as in the classical theory of comparative advantage with multiple commodities.[1]

equations of the form $W_1(y_1, y_2) = 0 = W_2(y_1, y_2)$, possessing a solution (y_1^0, y_2^0), cannot have any other solution provided

$$\Delta = \begin{vmatrix} \dfrac{\partial W_1}{\partial y_1} & \dfrac{\partial W_1}{\partial y_2} \\ \dfrac{\partial W_2}{\partial y_1} & \dfrac{\partial W_2}{\partial y_2} \end{vmatrix} \neq 0$$

In this case, where $y_1 = L_f/T_f$, etc., it is easy to show that

$$\Delta = \begin{vmatrix} \dfrac{P_f}{P_c}f'' & -c'' \\ -\dfrac{P_f}{P_c}\dfrac{L_f}{T_f}f'' & +\dfrac{L_c}{T_c}c'' \end{vmatrix} = \frac{P_f}{P_c}f''c''\left[\frac{L_c}{T_c} - \frac{L_f}{T_f}\right]$$

By hypothesis of diminishing returns f'' and c'' are negative, and the term in brackets (representing the respective labour intensities in food and clothing) cannot be equal to zero. Hence, the equilibrium is unique. As developed earlier, if the factor intensities become equal, or reverse themselves, the one-to-one relation between commodity and factor prices *must* be ruptured.

[1] The real wage of every resource must be the same in every place that it is used, when expressed in a common denominator. This gives us r $(n - 1)$

When we add a third productive factor and retain but two commodities, then the whole presumption towards factor–price equalisation disappears. Suppose American labour and American land have more capital to work with than does European labour and land. It is then quite possible that the marginal physical productivities of labour and land might be double that of Europe in both commodities. Obviously, commodity–price *ratios* would still be equal, production of both commodities will be taking place, but nonetheless absolute factor prices (or relative for that matter) need not be moved towards equality. This is our general expectation wherever the number of factors exceeds the number of commodities.

6. The Conditions of Complete Specialisation

If complete specialisation takes place in one country, then our hypothesis is not fulfilled and the conclusion does not follow. How important is this empirically, and when can we expect complete specialisation to take place? As discussed earlier, the answer depends upon how disparate are the initial factor endowments of the two regions—how disparate in comparison with the differences in factor intensities of the two commodities.[1]

Unless the two commodities differ extraordinarily in factor intensities, the production-possibility curve will be by no means so convex as it is usually drawn in the neo-classical literature of international trade, where it usually resembles a quarter circle whose slope ranges the spectrum from zero to infinity. It should rather have the crescent-like shape of the new moon. Opportunity costs tend to be more nearly constant than I had previously realised. This is a step in the direction of the older classical theory of comparative advantage. But with this important difference: the same causes that tend to produce *constant* costs also tend to produce *uniform* cost ratios between nations, which

independent equations involving the $(n - 1)$ commodity–price ratios and the $n(r - 1)$ factor proportions. If $n = r$, we have a determinate system once the goods price ratios are given. If $n > r$, we have the same result, but now the international price ratios cannot be presented arbitrarily as there are constant-cost paths on the production-possibility locus, with one blade of Marshall's scissors doing most of the cutting, so to speak. If $n < r$, it is quite possible for free commodity trade to exist alongside continuing factor-price differentials. It is never enough simply to count equations and unknowns. In addition we must make sure that there are not multiple solutions: that factor intensities in the different commodities and the laws of returns are such as to lead to a one-to-one relationship between commodity prices and factor prices.

[1] The reader may be referred to the earlier paper's discussion of Figures 1 and 2, with respect to "step-like formations" and overlap.

is not at all in the spirit of classical theory. (Undoubtedly much of the specialisation observed in the real world is due to something different from all this, namely decreasing-cost indivisibilities, tempered and counteracted by the existence of localised resources specifically adapted to particular lines of production.)

A parable may serve the double purpose of showing the range of factor endowment incompatible with complete specialisation and of removing any lingering element of paradox surrounding the view that commodity mobility may be a perfect substitute for factor mobility.

Let us suppose that in the beginning all factors were perfectly mobile, and nationalism had not yet reared its ugly head. Spatial transport costs being of no importance, there would be one world price of food and clothing, one real wage, one real rent, and the world's land and labour would be divided between food and clothing production in a determinate way, with uniform proportions of labour to land being used everywhere in clothing production, and with a much smaller—but uniform—proportion of labour to land being used in production of food.

Now suppose that an angel came down from heaven and notified some fraction of all the labour and land units producing clothing that they were to be called Americans, the rest to be called Europeans; and some different fraction of the food industry that henceforth they were to carry American passports. Obviously, just giving people and areas national labels does not alter anything: it does not change commodity or factor prices or production patterns.

But now turn a recording geographer loose, and what will he report? Two countries with quite different factor proportions, but with identical real wages and rents and identical modes of commodity production (but with different relative importances of food and clothing industries). Depending upon whether the angel makes up America by concentrating primarily on clothing units or on food units, the geographer will report a very high or a very low ratio of labour to land in the newly synthesised "country." But this he will never find: that the ratio of labour to land should ever exceed the proportions characteristic of the most labour-intensive industry (clothing) or ever fall short of the proportions of the least labour-intensive industry. Both countries *must* have factor proportions intermediate between the proportions in the two industries.

The angel can create a country with proportions *not* inter-

mediate between the factor intensities of food and clothing. But he cannot do so by following the above-described procedure, which was calculated to leave prices and production unchanged. If he wrests some labour in food production away from the land it has been working with, " sending " this labour to Europe and keeping it from working with the American land, then a substantive change in production and prices will have been introduced. Unless there are abnormal repercussions on the pattern of effective demand, we can expect one or both of the countries to specialise completely and real wages to fall in Europe relative to America in one or both commodities, with European real rents behaving in an opposite fashion. The extension of this parable to the many-commodities case may be left to the interested reader.

7. Some Qualifications

A number of qualifications to this theoretical argument are in order. In the first place, goods do not move without transport costs, and to the extent that commodity prices are not equalised it of course follows that factor prices will not tend to be fully equalised. Also, as I indicated in my earlier article, there are many reasons to doubt the usefulness of assuming identical production functions and categories of inputs in the two countries; and consequently, it is dangerous to draw sweeping practical conclusions concerning factor–price equalisation.

What about the propriety of assuming constant returns to scale? In justice to Ohlin, it should be pointed out that he, more than almost any other writer, has followed up the lead of Adam Smith and made *increasing returns* an important cause for trade. It is true that increasing returns *may* at the same time create difficulties for the survival of perfect competition, difficulties which cannot always be sidestepped by pretending that the increasing returns are due primarily to *external* rather than internal economies. But these difficulties do not give us the right to deny or neglect the importance of scale factors.[1] Where

[1] Statical increasing returns is related to, but analytically distinct from, these irreversible cost economies induced by expansion and experimentation and which provide the justification for " infant industry " protection. Statical increasing returns might justify permanent judicious protection but not protection all around, since our purpose in bringing about large-scale production is to achieve profitable trade and consumption.

One other point needs stressing. For very small outputs, increasing returns to scale may take place without affecting the above analysis provided that total demand is large enough to carry production into the realm of constant returns to scale. Increasing the " extent of the market " not only increases specialisation, it also increases the possiblity of viable pure competition.

scale is important it is obviously possible for real wages to differ greatly between large free-trade areas and small ones, even with the same relative endowments of productive factors. And while it may have been rash of me to draw a moral concerning the worth of emigration from Europe out of an abstract simplified model, I must still record the view that the more realistic deviations from constant returns to scale and the actual production functions encountered in practice are likely to reinforce rather than oppose the view that high standards of life are possible in densely populated areas such as the island of Manhattan or the United Kingdom.

There is no iron-clad a priori necessity for the law of diminishing marginal productivity to be valid for either or both commodities.[1] In such cases the usual marginal conditions of equilibrium are replaced by inequalities, and we have a boundary maximum in which we go the limit and use zero of one of the inputs in one industry. If it still could be shown that one commodity is always more labour intensive than the other, then the main theorem would probably still be true. But it is precisely in these pathological cases that factor intensities may become alike or reverse themselves, giving rise to the difficulties discussed in my earlier footnote on p. 188.

In conclusion, some of these qualifications help us to reconcile results of abstract analysis with the obvious facts of life concerning the extreme diversity of productivity and factor prices in different regions of the world. Men receive lower wages in some countries than in others for a variety of reasons : because they are different by birth or training; because their effective know-how is limited and the manner of their being combined with other productive factors is not optimal; because they are confined to areas too small to develop the full economies of scale; because some goods and materials cannot be brought to them freely from other parts of the world, as a result of natural or man-made obstacles; and finally because the technological diversity of commodities with respect to factor intensities is not so great in comparison with the diversity

[1] A "Pythagorean" production function of the form $F = \sqrt{L^2 + T^2}$ is an example of such a homogeneous function with increasing marginal productivity. So long as neither factor is to have a negative marginal productivity, *average* product must not be rising; but this is quite another thing. Surprisingly enough, the production possibility curve may still be convex with increasing marginal productivity. I have been asked whether any essential difference would be introduced by the assumption that one of the commodities, such as clothing, uses no land at all, or negligible land. Diminishing returns would still affect food as more of the transferable factor is added to the now specific factor of land; but no essential modifications in our conclusions are introduced.

of regional factor endowments to emancipate labourers from the penalty of being confined to regions lacking in natural resources. In the face of these hard facts it would be rash to consider the existing distribution of population to be optimal in any sense, or to regard free trade as a panacea for the present geographical inequalities.

PAUL A. SAMUELSON

Massachusetts Institute of Technology.

THE VALUE OF THE POUND

THE object of this note is to analyse the prospects for equilibrium in the British balance of payments in a year when normal conditions of world trading have been fully restored—we may, if we like, say 1952; and to consider the interaction between the exchange rate and the other variables of the situation.

Between 1938 and 1947 wage payments in Britain rose 2·03-fold for a virtually constant number in wage-earning employment. The index used by the United Nations Statistical Office also indicates a 2·03-fold increase between 1938 and the end of 1947, or a 2·09-fold increase in hourly wages. By the same date American hourly wages had risen 2·01-fold. But real product per man-hour in 1947 in Britain appears to have only just regained pre-war level, while in America it was 20% higher.[1]

	1939.	1946 (July to December).	1947.	1948 (January to June).
Gross national product, billions of current \$, annual rate	90·4	213·0	229·5	246·0
1939 Prices :				
Gross national product	90·4	143·2	141·0	141·6
Net national product	82·3	132·7	130·5	131·1
Numbers in employment, excluding forces, million	45·7	56·7	58·0	58·8
Real product in I.U.* (\$ of 1925–34 purchasing power):				
Per man-year	2,108	2,740	2,632	2,612
Per man-hour	1·00	1·22	1·21	1·21

* International Unit.

In other words, American efficiency wages are now nearly 20% below British on a 1938 basis, and the present exchange rate is slightly too high even to restore the *status quo* of 1938. But even in that year Britain had an adverse balance of payments; since that date there have been heavy and apparently permanent losses in the capacity to earn income through shipping and

[1] The various components of gross national product (consumption, construction, producers' durable equipment, net change in inventories, net surplus of exports) can each be revalued by appropriate price-index numbers. As the present method of estimation may undervalue depreciation and maintenance at post-war prices the national product is revalued gross, and converted to net on the assumption that the real volume of depreciation and maintenance is now 30% higher than in 1939. All data from *Survey of Current Business*, seasonally corrected where necessary.

international investment, and the terms of trade are turning against Britain and are expected to go much further. We must project these trends into the future and make use of what information we have about elasticity of demand for British imports and exports, to determine a possible equilibrium.

The basic information for the solution of this problem has already been assembled by others. Mr. T. C. Chang (ECONOMIC JOURNAL, June 1946), in a most thorough and careful analysis, finds the price elasticity of demand for imports in Britain (real income being held constant) to be 0·64. Messrs. Hinshaw and Metzler (*Review of Economic Statistics*, November 1945) analysed the factors determining all the significant elements in the British balance of payments. While leaving aside the question of price elasticity, they obtained a relationship between the volume of British imports and British real income (Mr. Chang also obtained a similar figure), one between the volume of British exports and the level of world real income, and three others showing the determination of net income from shipping, from overseas investment, and from short interest and commissions, by the level of world money income.

Messrs. Hinshaw and Metzler's relationships were on the year 1937 as a base, and in all the subsequent measurement of variables we will take 1937 = 1. As a base year 1937 has the additional advantage that the terms of trade (measured by American prices for manufactured goods and farm produce respectively) were almost exactly the same as the average of the decade 1925–34, which was taken as the base of the projections of the terms of trade made in *The Economics of 1960*. When normal world trading is fully restored, we may assume real income in Britain to be 1·2 on the 1937 base. In 1947 it was only 1·07. A considerable improvement in efficiency, and some increase in the working population is anticipated.

For the rest of the world a real income of 1·4 is projected. This takes account of:

1. The more rapid population increase in other countries.
2. A somewhat more rapid increase in efficiency.
3. In 1937 U.S.A., whose income constitutes nearly half of the "rest of the world," had a much higher level of unemployment than Britain.
4. The depressing effect of the terms of trade upon British real income.

We must now consider prices and money values.

The word "dollar" as used below, is meant to include the currencies of all the rest of the world at the rates at which they effectively exchange against the dollar. The equilibrium rates of exchange against the dollar recommended below are to be interpreted literally if the currencies of the rest of the world are subject to free exchange by 1952; if through restrictions or for other reasons they are not arbitraged throughout the world, then they must be taken to mean the weighted average of the dollar exchange and of the rates at which other currencies effectively exchange against the dollar.

On this definition it is expected that the world dollar price of goods and services, other than food and raw materials, will be 1·5 on a 1937 base. American hourly money wages in mid-1948 stood at 2·12 on a 1937 base, efficiency wages at 1·62. It is assumed that efficiency will continue to increase and money wages be virtually stationary. In a number of countries where money wages have increased substantially, the complete or partial exchangeability of the currency now allowed against gold or dollars, will, it appears, keep the dollar price of their exports in the neighbourhood of 1·5 (*e.g.*, France, Italy, India).

Next we must consider the probable movement of the terms of trade. These I have estimated move by a factor of 1·5 in favour of agriculture between 1937 and 1952. I have given reasons in *The Economics of 1960* for believing that they will move by a factor of 1·9 by 1960. The reasons analysed in that book—rapid growth of population in many parts of the world, outflow of labour from agriculture (accelerated by full employment conditions), increasing demand for certain types of food with rising real income, need of the densely populated countries for export markets—all still appear to be fully valid; and the division of Germany will bring into the world market another country exceptionally dependent on exports. The Central Planning Bureau of the Netherlands [1] have recalculated the equations of *The Economics of 1960* on extreme assumptions about the extent and permanence of war damage, *i.e.*, the real income of Germany, Italy, Russia, Japan, China and the Balkans is put at anything from 25% to 50% below my estimate. Even so they find the terms of trade moving in favour of agriculture by a factor of 1·5.

On this assumption prices of food and raw materials will stand at 2·25 on a 1937 basis. The weighted average of world

[1] Results privately communicated.

dollar prices will rise by a factor of 1·65 and world money income measured in dollars will rise by a factor $1{\cdot}4 \times 1{\cdot}65 = 2{\cdot}31$.

Those who wish may assume that the terms of trade will return to the 1937 level. Calculations on this assumption are (for convenience) made on the assumption that primary and non-primary prices rise alike by a factor 1·65 from 1937.

From 1937 to June 1948, the movement of the terms of trade, as indicated by American prices, had been 1·28.

The following table shows 1952 estimates for the volume at 1937 prices of the items in the British balance of payments in 1952, using the Hinshaw–Metzler equations (*i.e.*, allowing for home and world income elasticities, but before allowing for price elasticities).

	Actual, 1937, £m.	Actual, 1937, less estimated permanent reductions in capacity due to war, £m.	Estimate for 1952. Exports and imports at 1937 prices. Other items at current prices.	
Retained imports, excluding precious metals . . .	953	—	1,077	
Exports of British products, excluding precious metals .	522	—	678	
Net shipping income . .	130	98	250	590
Net income from investments .	210	105	252	
Net receipts from short interest and commissions . .	40	—	88	
Balance of above (minor items ignored)	−51	−188	—	

Price elasticity of demand for imports has already been determined by Mr. Chang at 0·64 (will be taken as two-thirds for convenience in calculation). What is the order of magnitude of the price elasticity of demand for British exports? Professor Tinbergen reviews some export price elasticities of demand (*Review of Economic Statistics*, August 1946) and finds that, in general, they are of the order of magnitude of 2. In a paper on the dollar shortage before the World Statistical Conference in 1947 [1] he also analysed the price elasticity of demand for some imports of manufactures into America.

To assume a figure of 2 for price elasticity of demand for British exports would probably be justified and would accord with

[1] In this paper, which attracted much international attention, it was contended that the dollar shortage could be put right if *money costs* throughout the rest of the world could be reduced 20% relative to America, *i.e.*, through a rise in money incomes in America or a fall in money incomes elsewhere.

Price Elasticities of Demand in International Trade

Dutch exports.		Swedish imports.		U.S. imports.	
Coal	2·0	Cast iron	0·9	Cotton cloth	0·8
Cotton goods	4·8	Plate	1·2	Woollen yarns	2·2
Shoes	2·8	Plate and tin-plate goods	1·0	Woollen fabrics	1·9

estimations already made by others. We can now state the equations determining the equilibrium of the balance of payments.

Let the price of British-produced goods rise by a factor p on a 1937 base, and let the dollar exchange be depreciated to a proportion q of its 1937 level. Assuming exports contain 20% raw material, the dollar price of which has risen by a factor 2·25, the price of British exports will be $0{\cdot}8\,p + 0{\cdot}45\,q^{-1}$.

Let the equations for price elasticity be of the form that where Y represents the volume of imports or exports determined from income elasticities alone, and y the volume after taking into account price elasticities, e the elasticity and P the *relative* price, then—

$$\text{Log}\, y = \text{Log}\, Y - e\, \text{Log}\, P$$

or—

$$y = YP^{-e}$$

i.e., a 20% rise in the price of British exports relative to world prices will cause their volume to fall by a factor 1·44, *i.e.*, to just under 70% of their former volume.

Now the dollar price of imports will be 2·25 and the sterling price $2{\cdot}25q^{-1}$. Relative to home-produced goods the price of imports will be $2{\cdot}25(qp)^{-1}$.

The volume of imports at 1937 prices is given in the table at £1,077 m. Price elasticity of imports being taken at two-thirds the sterling value of imports will be—

$$1{,}077\ (2{\cdot}25q^{-1})\left(\frac{2{\cdot}25}{qp}\right)^{-\frac{2}{3}} = 1{,}077\left(\frac{2{\cdot}25p^{2}}{q}\right)^{\frac{1}{3}}$$

The price of exports, as indicated above, will be—

$$0{\cdot}8p + 0{\cdot}45q^{-1}$$

Competitors' prices will be 1·5 measured in dollars, or $1{\cdot}5\ q^{-1}$ measured in sterling, and the price of British goods relative to competitors will be—

$$\frac{0{\cdot}8pq + 0{\cdot}45}{1{\cdot}5}$$

The sterling value of exports will be—

$$678\,(0{\cdot}8p + 0{\cdot}45q^{-1})\left(\frac{0{\cdot}8pq + 0{\cdot}45}{1{\cdot}5}\right)^{-2}$$

Sterling income from shipping, etc., will be 590 q^{-1}.

We thus obtain an equation for the balance of payments, mathematically very inelegant, and which no function (to my knowledge) will solve; but which can be solved graphically with a little labour.

If we make the alternative assumption about the terms of trade, the following alterations are necessary.

In the equation for imports the coefficient 2·25 is replaced by a coefficient 1·65. In the equation for exports the coefficient 2·25 (*i.e.*, $1{\cdot}5^2$) is replaced by the coefficient 2·71, and the coefficient 0·45 by the coefficient 0·33.

However, before solving the equations we must decide whether we are aiming at an exact balance of payments or whether we would prefer an equilibrium allowing for a capital outflow. There are some grounds for thinking that long-term equilibrium will require such an outflow.

The following table gives net internal and external investment[1] as percentages of national income at market prices. It then

Date.	Percentages of national income at market prices			Unemployment percentage.	Equilibrium rate of investment as percentage of national income.
	Net internal investment.	External investment.	Total investment.		
1907	5·8	7·1	12·9	3·8	12·3
1924	6·2	1·7	7·9	10·2	10·5
1929	4·7	2·3	7·0	10·3	9·6
1932	2·1	−1·3	0·8	21·9	9·3
1938	7·8	−1·3	6·5	11·8	9·9
1946	15·5	−4·1	11·4	2·5	10·2
1947	16·6	−6·6	10·0	2·2	8·6

proceeds to get an extremely crude indication of what might be called "equilibrium rate of investment" by assuming that full employment prevails when unemployment stands at 5% and that the multiplier is 2, *e.g.*, an unemployment rate of 10% indicates that another 2½% of the national income needs to be invested to secure equilibrium. (Adjustments in the opposite direction are made in years of over-full employment.)

[1] In *White Paper* terminology "saving and other sums set aside" less "saving of public authorities" (negative) and "depreciation and maintenance provisions".

Looking a few years ahead, therefore, it appears that a net investment of 9% of the national income, or perhaps even higher, will be necessary to maintain full employment. What will the internal demand be when the present arrears have been worked off and inventories restored? The figure for 1938 is not much guide because in that year the arrears of investment from the depression years were still being met and, in particular, housing was still very active. With a virtually stationary population it is hard to believe that the percentage of income invested at home will be much higher than that of 1907 or 1924, however active are the programmes for re-equipment. It looks as if, to maintain full employment, some 3% of the national income will have to be spent on more or less unwanted public works or invested externally. The results below will show that the latter objective is quite attainable if we give our minds to it. From Britain's point of view, external investments will provide a reserve against the unforeseen contingencies of the future and might perhaps be drawn upon when population again begins to increase. From the world's point of view it is obvious that there are so many great territories crying hungrily for capital from wherever they can get it, that to check a capital outflow because of a political preference for public works would be a piece of foolish isolationism (comparable to that of some Indian politicians who are resisting proposals for a capital inflow).

We therefore work out our equations with or without a term which leaves a net export surplus of 3% of national income (shown as $145p$).

We now make three alternative assumptions about the level of British prices and costs. The first may be described as the policy of "financial severity." This enables p to fall by 1952 to 1·8 from its 1947 level of 1·9, involving a virtual stabilisation of money wages and a distinct increase in efficiency. The second assumption can be described as the policy of "financial ease," or letting things follow their present course. During the last year money wages have risen 6% (hourly rates a little more), and there are not yet many signs of rising product per man-hour. On this course, p may have risen to 2·25 by 1952.

Finally, we consider the alternative of "active deflation" with a reduction in money wages of 20% accompanied by a considerable increase in efficiency, bringing p down to 1·44. This is only mentioned to show that it is almost inconceivable.

Consider first the middle policy of "financial severity." The conditions of equilibrium will be:

	Exchange rate, $.	Imports, £m.	Exports, £m.	Invisibles, £m.
To obtain zero balance of payments	3·43	2,360	1,510	850
To obtain capital outflow at required rate . . .	3·14	2,430	1,760	930
Assuming terms of trade return to 1937 level:				
To obtain zero balance of payments	4·36	1,960	1,300	660
To obtain capital outflow at required rate . . .	3·96	2,020	1,540	740

If the reader assumes that financial severity can be maintained he will pick his position among these four alternatives according to his estimate of the need for capital outflow, and of the probable course of the terms of trade. If he takes a middle view on the terms of trade he will be content that the present rate of exchange will serve to secure a zero balance of payments by 1952, but will depreciate it some 30 or 40 cents if he wishes to obtain a capital outflow.

With the active deflation policy, the exchange is some 25% higher throughout and the sterling values of trade, of course, lower.

	Exchange rate, $.	Imports, £m.	Exports, £m.	Invisibles, £m.
To obtain zero balance of payments	4·30	1,890	1,210	680
To obtain capital outflow at required rate . . .	3·94	1,930	1,400	740
Assuming terms of trade return to 1937 level:				
To obtain zero balance of payments	5·55	1,550	1,020	530
To obtain capital outflow at required rate . . .	4·94	1,620	1,240	590

In other words, each 1% on wages, if not matched by American wages, represents 5 cents off the exchange rate.

Finally, let us consider what is unfortunately the most probable contingency, namely, that of financial ease.

The reader, with a little labour, may work out any alternative hypotheses from the above equations, but it does not seem likely that events will move outside the range of the alternatives indicated.

To qualify for the "financial severity" condition there will certainly have to be an immense reduction in present rates of taxation, which took in 1947 41% of national income at factor

cost, as compared with 25% in 1938. Reasons were given in an article in ECONOMIC JOURNAL, December 1945, for believing that when taxation exceeded 25% of the national income it became impossible to resist inflationary pressures, and subsequent experience seems to have confirmed this generalisation all too fully.

	Exchange rate, \$.	Imports, £m.	Exports, £m.	Invisibles, £m.
To obtain zero balance of payments	2·75	2,940	1,880	1,060
To obtain capital outflow at required rate	2·51	3,030	2,200	1,160
Assuming terms of trade return to 1937 level:				
To obtain zero balance of payments	3·50	2,450	1,620	830
To obtain capital outflow at required rate	3·16	2,530	1,940	920

Not only is the incentive to real effort greatly weakened on the part of all classes; not only does the wage earner demand higher wages because of the unaccustomed direct and indirect taxation which he now has to bear; in addition the employer paying high marginal rates of tax becomes quite indecently willing to grant wage increases; and money and resources leak away in bonuses, expense accounts, advertising and all manner of ways.

The burden of the national debt since 1938 has only risen from 5% to 6% of national income, and there has been no great expansion of social services. Subsidies have risen from 1% to 5% of national income and appear to be continuously increasing. There has been, of course, a marked rise in defence expenditure, but the rest of the increase represents the enormously expanded cost of public administration. The number of Public Service employees rose 700,000 from 1939 to the end of 1947 and is apparently still increasing. And only a small proportion of this increase is accounted for by teachers, post office or trading services.

To restore taxation to a bearable proportion of national income would apparently involve three drastic moves undertaken simultaneously:

1. To extinguish most of the national debt by means of a capital levy.
2. To abolish the subsidies.
3. To dismiss half a million redundant public employees (with a few months' salary as a bonus, scaled according to the difficulty they may experience in finding other work);

the whole mass of detailed controls would be abolished, and Government intervention in the economic system confined to a few strategic points.

Even if these have been done and the rise in costs checked, an exchange somewhere between \$3 and \$3·50 will be necessary if the terms of trade continue to move in favour of agriculture as it is expected that they will: or the present exchange rate can be maintained on optimistic assumptions about the terms of trade. But if the reader cannot foresee a drastic reorganisation of the public finances accompanied by a stabilisation of money wages, then he had better prepare himself for an exchange rate which we may take, as a starting point, at \$2·50. He may add 25 cents if he will be content with a zero balance and does not think a capital outflow is necessary to maintain full employment; up to 70 cents according to his optimism about the terms of trade; and raise the whole thing proportionately if American money wages go on rising, which does not seem too likely.

It may be that America will oblige by organising a rise in money wages on the substantial scale necessary to preserve the present exchange rate. But it does not seem likely. The present indications are for a flattening out of price of farm products. The further movement of the terms of trade towards their equilibrium level will probably occur through a decline in the dollar price of manufactured goods, as American productivity per man-hour goes on steadily climbing, and with an increasing flow of manufactured goods coming on to the world market as Western Germany, France, Japan and India set out to achieve a balance of payments.

But in any case, the mere stabilisation of food prices in America should at least mean that the rate of increase in money wages there will be greatly slowed down.

COLIN CLARK

Bureau of Industry,
Brisbane.

THE FUTURE OF BANKING IN AUSTRALIA

It is the purpose of this article, first, to discuss the recent attempt to nationalise the private trading banks in Australia and, second, to examine the relevant economic arguments, which have so far been somewhat neglected. In particular, attention should be directed to the rather special economic effects, which may follow bank nationalisation when undertaken in a federal State subject to constitutional limitations upon the power to legislate. At the same time, it should not be too readily assumed that the present arrangements are ideal. Certain reforms, which it is believed would have the effect of further strengthening the Australian banking system as a whole, have therefore been suggested.

I

The present narrative begins in 1945, by which time the Commonwealth Bank appeared to have completed its evolution as Australia's central bank. Under the *Banking Act* of that year, certain war-time innovations in the method of credit control were given statutory recognition, and the new position seemed to have all the characteristics of stability. However, this assumption was to be rather rudely disturbed, when the Melbourne City Council challenged the constitutional validity of Section 48 of the Act in the High Court. This section provided that "Except with the consent in writing of the Treasurer, a bank shall not conduct any banking business for a State or for any authority of a State, including a local governing authority," and, by a majority judgment handed down in August 1947, it was declared *ultra vires* the Federal Constitution. The effect of this decision was to prohibit the Federal Parliament from requiring municipalities to bank exclusively with the Commonwealth Bank. Under the Constitution, the Federal Government was empowered to legislate for "Banking other than State banking; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money." The question was whether Section 48 fell within the terms of this power.

The Commonwealth had contended that it was now a recognised function of a central bank to act as government banker. "The extension of this recognised function . . . to the accounts of

States and authorities of States is within the general theory of central banking because Commonwealth and States may now be regarded as one government for monetary and public credit purposes." [1] But the High Court held (McTiernan, J., dissenting) that in this matter the Commonwealth had ignored the complexities of a Federal Constitution. In the words of Latham, C.J., "The Commonwealth Parliament had no power to make laws with respect to State governmental functions as such, and the State Parliaments have no power to make laws with respect to Commonwealth governmental functions as such. It is upon this ground, in my opinion, that what is called 'discriminatory' legislation may properly be held to be invalid. . . . Similarly, Federal legislation, which though referring to a subject of Federal power, is really legislation about what is clearly a State governmental function may be said to 'interfere unduly' with that function and therefore to be invalid." [2]

It was the application of these principles which led the Chief Justice to the conclusion that Section 48 of the *Banking Act* 1945 was invalid. "The section requires the consent of the Treasurer to the conduct of banking business by a bank only in the case of States and State authorities, including local governing authorities. It singles out States and State agencies and creates a rule for them and for no others. . . . It can fairly be described as being aimed at or directed against States—and it none the less falls within this disqualifying category because it is also aimed at and directed against what are called 'private banks.' On this ground, in my opinion, Section 48 is invalid." [3]

II

It was after this decision that Federal Cabinet decided unanimously to nationalise the private trading banks. This came as something of a surprise, not merely to the banks and the general public, but even to members of the Labour Party itself. There were some who suspected that the Prime Minister and Treasurer had acted out of sheer pique. There were others who saw in this development the consummation of the plans of the Party's left wing, which had never wavered in its belief in nationalisation. But, whatever the truth of the matter, it must be remembered that nationalisation of the banks had been a plank in the Labour Party's platform from 1921 onwards. More-

[1] (1947) 74 *Commonwealth Law Reports* (hereinafter referred to as C.L.R.) 31 at p. 40.

[2] *Ibid.*, at p. 61.

[3] *Ibid.*, at p. 62.

over, in 1947, Labour had a handsome majority in the House of Representatives and an assured position in the Senate for some years to come, and the Government may well have felt that here at last was a good pretext and the Party's opportunity to carry out its declared platform.

In introducing his Banking Bill to the House of Representatives on October 15, 1947, the Prime Minister and Treasurer (Mr. J. B. Chifley) pointed out in his second reading speech "the importance of money and credit in a modern economic system. Mismanagement of money," he added, "has contributed to the greatest economic disasters of modern times—booms and slumps, mass unemployment, waste of resources, industrial unrest and social misery." To counter this state of affairs, the Labour Party had maintained for many years that

> "the entire monetary and banking system should be controlled by public authorities responsible through the Government and Parliament to the nation. On this principle, the Labour Party has held further that, since private banks are conducted primarily for profit and therefore follow policies which in important respects run counter to the public interest, their business should be transferred to public ownership." [1]

Turning to constitutional issues, it was felt at the time it was drafted that the *Banking Act* 1945, including Section 48 of the Act, was a law with respect to banking and that Parliament had acted within the scope of the powers conferred by Section 51 (xiii) of the Constitution. Moreover, Section 48 was regarded by the Government as an important part of the legislation. But the High Court's decision "showed that full public control of banking as sought under the 1945 legislation could not be secured without public ownership of banking. The decision forced the Government to re-examine all the circumstances, constitutional and otherwise, surrounding the legislation of 1945. In particular, the Government has had to reconsider the constitutional basis of Sections 18–22 of the Banking Act, which required the private banks to make deposits in special accounts with the Commonwealth Bank and also the attitude of the private banks towards those sections." [2] The case for nationalisation of the private trading banks was based almost entirely on the assumption that these vital Sections 18–22 were now open to challenge in the High Court.

[1] Commonwealth of Australia—*Parliamentary Debates*, 18th Parliament, 1st Session 1946–47 (3rd Period), p. 798.

[2] *Ibid.*, at p. 802.

In this connection, however, the Prime Minister's argument seems to be based on evidence of trading-bank hostility rather than on the High Court judgment itself. It was stated, for example, that the private banks had

> " always bitterly resented any attempt to place restrictions on their power to create or restrict credit. When the 1945 Banking Bill was before the House they fought these provisions with all the means at their disposal. Towards the end of 1945, when the bill had become law, they were required to transfer their war-time special deposits to the special accounts established under the new legislation. . . . The private banks, obviously acting in concert and on legal advice, made it clear at that time that, while they were submitting to the legislation for the time being, they were reserving the right to challenge it at a suitable opportunity.
>
> " This indication of the attitude of the banks assumed greater significance when the special account system was challenged in the statement of claim made by the Melbourne City Council in connexion with the Section 48 case—even though eventually the challenge to Sections 18–22 . . . was not pressed. It assumed still greater significance when the High Court decision on Section 48 made it clear that although the Commonwealth Parliament had by the Constitution been given power to legislate on banking, nevertheless a law which was clearly a law with respect to banking could be held invalid on other constitutional considerations."

The Government

> " offered to the private banks the opportunity to co-operate within a national system of banking, subject to overall control by the Commonwealth Bank, as they had, in fact, done during the war period. That position was never accepted without reservation by the private banks and now that the legal foundations of the system have been challenged the Government has decided to proceed with its long-standing policy of full public ownership." [1]

How much truth was there in the Prime Minister's contention that " the legal foundations of the system have been challenged " ? In his High Court judgment, the Chief Justice had said that, although the Commonwealth Parliament had no power to legislate with respect to " the maintenance of full employment in Australia " and " the economic prosperity and welfare of the people of Australia " as subjects in themselves, Parliament

> " may exercise the powers which it does possess for the purpose of assisting in carrying out a policy which may affect

[1] Commonwealth of Australia—*Parliamentary Debates*, 18th Parliament, 1st Session 1946–47 (3rd Period), pp. 802–803.

> matters which are not directly within its legislative powers. . . . There is no legal obstacle to the use of the Commonwealth Bank as a means of aiding Government policy with respect to employment and economic conditions."[1]

Furthermore, as the Leader of the Federal Opposition (Mr. R. G. Menzies) pointed out in his second reading speech, the only effect of an attack on Sections 18–22 would have been that the Government would have had to redraft its legislation and enact it in a different form.[2]

III

The purpose of the *Banking Act* 1947 was to empower the Commonwealth Bank to take over the banking business conducted in Australia by private banks. State banks and savings banks were not affected. Two main methods of acquisition were laid down in the Act. The first provided for a voluntary or compulsory acquisition of the Australian business and assets of the private banks, and the second for a compulsory acquisition of shares. Where the Commonwealth Bank purchased all or any of the shares in a private bank, the price paid was not to be less than the market value of those shares in Australia on August 15, 1947. As a preliminary to acquisition, provision was made for the Treasurer, by due notice, to invite the private banks to make agreement with the Commonwealth Bank for the transfer of its business on a specified date not more than two months later than the date of notice, though the Treasurer might extend the currency of the notice.

In order to induce private banks to enter into "voluntary" agreements with the Commonwealth Bank for the acquisition of their businesses, a private bank was to be entitled to receive an exemption from taxation on the amount paid to it in pursuance of the agreement, and the shareholders of the bank were to be exempt from taxation on any dividend or distribution which directly resulted from the payment received under the agreement. These concessions were not to apply in the case of a compulsory acquisition.

For all property or shares of the banks compulsorily acquired, "fair and reasonable compensation" was to be paid. This was to be determined either by an agreement approved by the Treasurer or, failing agreement, the amount payable would be

[1] (1947) 74 C.L.R. 31 at p. 47.

[2] See Commonwealth of Australia—*Parliamentary Debates*—18th Parliament, 1st Session 1946–47 (3rd Period), p. 1286.

determined by a Federal Court of Claims, a determination of which would be final and conclusive and not subject to appeal to the High Court. Compensation would be paid by the Commonwealth Bank from its own resources, and payments would be made either in cash or Government bonds as desired.

Mr. Chifley had directed much of his argument against the continued existence of private trading banks on the grounds that they represented a private monopoly. For this system, he proposed to substitute a government banking monopoly. He did not specifically deny that a system of privately owned trading banks, controlled by a strong central bank, might not have some advantages, but he felt that these were largely illusory.[1] Formerly, the private banks had competed mainly on the basis of the services which they offered to the public. This doubtless resulted in a degree of "excess capacity," in that certain branches became redundant, but this could have been overcome—as it was during the war years—by a policy of "rationalisation." The important thing, however, was that a bank customer was offered a choice of banking facilities and, if he was dissatisfied with the service he received at one bank, he could usually transfer his account to another.

In order to counter the effects of limitation of choice of banking facilities under nationalisation, the Prime Minister, in his second reading speech, promised that a "system of appeal" would be provided, so that a person who considers that he has not had reasonable treatment from a local manager will be able to refer his case to a regional authority for reconsideration. But there was nothing in the legislation to this effect and, in Mr. Menzies' phrase, presumably "it will depend upon a completely unenforceable administrative rule made by the Commonwealth Bank."[2]

Before this legislation could be implemented, however, it was challenged in the Australian High Court by the private trading banks and the States of Victoria, South Australia and Western Australia. Judgment was handed down on August 11, 1948, when by a majority decision vital operative sections of the Act were declared *ultra vires* the Federal Constitution, and an injunction was granted restraining the authorities concerned from taking any further action under those sections of the Act which had been declared invalid by the Court.

[1] See Commonwealth of Australia—*Parliamentary Debates*—18th Parliament, 1st Session 1946–47 (3rd Period), pp. 808–809.

[2] *Ibid.*, p. 1281.

It is not proposed to discuss here the details of this judgment,[1] though the extent to which it turned on Section 92 of the Constitution (which provides, *inter alia*, that " trade, commerce and intercourse among the States . . . shall be absolutely free ") is important. By applying Section 92, the four judges concerned all held, in effect, that banking was a part of " trade," and interference with it would therefore contravene the provisions of the Constitution. To quote the joint judgment of Rich and Williams, JJ., " . . . an Act which operates directly to prevent an individual ever engaging in interstate trade must be void whether he is at the moment engaged in such trade or not," [2] while Mr. Justice Dixon held that " a large part of the business of banking, if transacted across State lines, involves trade, commerce and intercourse among the States." [3] Mr. Justice Starke expressed similar views.[4]

It may be possible to overcome the High Court's objection that the Act failed to meet the requirement of " the acquisition of property on just terms," as set out in Section 51 (xxxi) of the Constitution, but Section 92 would still remain as a stumbling-block. No doubt, it was for this reason that the Australian Government decided to appeal to the Privy Council.

IV

The proposals to nationalise the private trading banks in Australia may be attacked on political, legal and economic grounds. With political questions, this paper is not concerned and the constitutional arguments have been discussed in detail elsewhere. But the economic arguments against bank nationalisation in Australia have very largely been ignored. An attempt will be made to formulate these in what follows.

First, it may be claimed that nationalisation of the private trading banks will have the effect of destroying what could have been an efficient system of central banking suited to Australian conditions.

As a direct result of Commonwealth Government action, several of the States announced their intention of extending their banking activities into the trading field. In three States—Victoria, South Australia and Western Australia—non-Labour Governments are now in office and they have little sympathy

[1] A competent summary is available in *The Banker*, September 1948, pp. 149–151.

[2] See *The Argus Law Reports*, 1948, Vol. 2, p. 195.

[3] *Ibid.*, p. 249. [4] *Ibid.*, pp. 201 ff.

with the Commonwealth Government's plans to nationalise the private banks. Even in New South Wales, where a Labour Government is in power, legislation has been passed to authorise the Rural Bank in that State to conduct a general banking business and to give it the same status as a trading bank. The Rural Bank commenced full operations as a trading bank in December 1947, and, immediately, there were numerous applications for industrial and commercial accommodation.[1]

In Western Australia, also, the Premier said that, if the nationalisation plan came into effect, his Government would extend the activities of the Western Australian Rural and Industrial Bank, which, under amending legislation, would now enjoy the same scope as a trading bank.[2]

Victoria likewise was planning a new State trading bank. For the purpose of giving depositors "a choice of banking facilities," the State Attorney-General announced that the Government would definitely create a trading bank to compete with the Commonwealth Bank, if the High Court challenges against the bank nationalisation legislation failed. This attitude was by no means unexpected, because the new Liberal–Country Party Coalition Government had only recently won an election on the banking issue and had pledged itself to set up a State trading bank, if the Commonwealth took over all the private banks.[3]

No overt statement of intention to expand the trading activities of the existing State Bank of South Australia seems to have been made by the Premier of that State, but there could be little doubt that South Australia would follow the example of New South Wales, Victoria and Western Australia, in the event of the bank nationalisation legislation becoming effective.

However, the general result of Commonwealth action and State reaction would have been to destroy—rather than to strengthen—central banking control in Australia. After nationalisation, the Commonwealth would still not be able to compel State Governments to bank with the Commonwealth Bank,[4] nor could it prevent them from establishing State trading banks in competition with the Commonwealth Bank. Indeed, by virtually forcing the State Governments to act in self-defence and to set up their own trading institutions, the Commonwealth would have succeeded in replacing an efficient system of private banking under

[1] See *Sydney Morning Herald*, 23.12.47.

[2] *Ibid.*, 26.11.47 [3] *Ibid.*, 13.12.47

[4] It will be recalled that this was one of the objects of Section 48 of the *Banking Act* 1945 declared invalid by the High Court.

strict central bank control by two rival systems of government banking in active competition with each other and not necessarily in agreement on matters of credit policy, which affect the nation as a whole. The folly of the Commonwealth Government's nationalisation policy is revealed at once.

Second, it can be argued that little was to be achieved by nationalisation of the private trading banks that could not have been achieved either under the 1945 legislation as it stood, or as it could be amended.

In this connection, it is necessary to consider the scope of the Commonwealth Bank's power to control credit conditions under the 1945 legislation. In virtue of its power to require the deposit in special accounts with itself of all the "surplus investible funds" of the trading banks, the central bank was able to exercise full control over the quantity of credit which might be made available to the community. Except that it could not force trading-bank cash holdings below their 1939 levels, the Commonwealth Bank had complete freedom to vary their cash base and could treat any additional funds as a "surplus" to be frozen in the way indicated. On the other hand, in the event of financial stringency, the Commonwealth Bank could release funds to the trading banks [1] and thus encourage increased lending to the public and, if the trading banks were not disposed to expand their loans, the Commonwealth Bank itself could provide the public with finance through its general banking department. By means of this control, together with its control over trading-bank holdings of Government and industrial securities, the Commonwealth Bank could [illegible] effectively control the level of trading-bank profits and any remaining "surplus" profits could be accounted for by increased company taxation.

Supplementing this power of quantitative control, the Commonwealth Bank was specifically empowered by the 1945 legislation to lay down rules indicating the directions in which bank credit should be made available. The only limitation on this power was that the directions were to relate to "classes of persons" and not to individuals. It will be apparent that by controlling the direction of lending, the central bank also had an effective check on the total amount lent, and both the quantitative and qualitative controls could be operated together to preclude either an excess or a deficiency of credit in particular sectors of

[1] Indeed, it has already done so. Thus, during the early months of the financial year 1947–48, "substantial withdrawals were allowed from the banks' Special Accounts to meet the liquidity requirements of the banks." (Commonwealth Bank *Annual Report*, 8.9.48.)

the economy. The quantitative control may have been more important in an overall sense, but the power to determine the direction of lending was equally essential, if sectional inflations were not to lead to relative over-investment in particular industries.

Finally, there was the Commonwealth Bank's control over the terms of lending (interest rates), by means of which the central bank could influence the costs of different types of bank lending. Although the efficacy of changes in the interest-rate structure as an instrument of policy has not always been accepted without qualification, a low interest rate certainly operates to encourage economic activity, and that is all the Australian Government has been concerned to ensure.

Furthermore, the Treasurer now had the last word in deciding monetary policy, and the Government thus had full power under the 1945 legislation to determine the amount and the direction of credit flows emanating from the private trading banks and, in that way, could influence resource flows also. Nor had the loss of Section 48 of the *Banking Act* 1945 materially affected the position. Surely, no more could have been expected of a nationalised banking system.

If there was any weakness in the 1945 arrangements, it was the direction given by the Government, requiring the central bank to compete actively with the trading banks for general banking business. This has never been regarded as a central banking function and, if the Government wished to operate a trading bank, it could have set up a separate institution, to which the same rules should have been applied by the central bank as were applied to the private banks. Instead of that, a situation developed, in which Commonwealth Bank competition for general banking business only added to the virulence of inflationary forces already operating and, by the middle of 1947, there was evidence of a boom in secondary industry which was approaching dangerous proportions. For this, the Commonwealth Government itself was largely responsible, since the Treasurer overruled the Commonwealth Bank, and it was only when the boom had begun to get out of hand that he permitted the central bank to impose new restrictions on the post-war expansion of credit. In other words, if central banking control under the terms of the *Banking Act* 1945 had failed,[1] the Government was to blame and not the

[1] For statements to this effect, see W. C. Taylor, "Labour's Plan: A Financial System for Tomorrow," *Sydney Morning Herald*, 30.8.47. Mr. Taylor wrote both as a member of the Labour Party and as a Labour appointee to the old Commonwealth Bank Board abolished in 1945.

trading banks. One is entitled to ask, therefore, whether bank nationalisation was likely to prevent such excesses in the future.

On these grounds, then, it is reasonable to claim that Government financial policy was confused. On the one hand, it was proposed to control the trading banks so that they could not feed the inflation. On the other, the Commonwealth Bank was encouraged to seek new business and thereby add to the inflationary forces, which the Government had professed its intention to curb.

In point of fact, neither the 1945 arrangements nor nationalisation was the optimum solution, since under both there was grave danger of an over-issue of credit. The weakness of the 1945 legislation was its requirement that the Commonwealth Bank *must* compete with the trading banks. Likewise, under nationalisation, there was the danger that pressure would be applied by Labour Governments to induce the Commonwealth Bank to maintain an expansionary monetary policy. It would therefore seem that a more appropriate solution would have been to transform the Commonwealth Bank into a central bank proper with all its existing powers of control and to conduct in a separate institution (and under the same conditions as applied to the private banks) all the trading functions of the Bank. In these circumstances, one could expect that the trading banks would gain in their confidence in the Commonwealth Bank and would co-operate fully in the implementation of its policy.

There is also much to be said for returning the management of the Bank to a newly constituted Board with freedom of public statement, such a Board to combine the technical capacity of the present Advisory Council with some representation of the country's major economic interests.

It was along these lines that the Government might have planned to improve the Australian banking system rather than by attempting nationalisation.

J. S. G. WILSON

London School of Economics.

REVIEWS

The Measurement of Production Movements. By C. F. CARTER, W. B. REDDAWAY and RICHARD STONE. (Cambridge University Press, 1948, Pp. vii + 135. 12*s.* 6*d.*)

THIS is the first in a series of monographs to be issued by the Department of Applied Economics at Cambridge. The series has made a very auspicious beginning. This monograph gives a complete description of the index number of industrial production which is prepared monthly by the Department of Applied Economics and published in the quarterly *Bulletins* of the London and Cambridge Economic Service. It would be good if all index numbers were described as completely, or indeed, constructed as carefully within the limits of available data. The book, however, is far more than this. It gives an admirable analysis of the principles involved in index-number construction and a disarmingly candid account of the difficulties met in the application of these principles in the construction of one particular index. In short, it is a text-book on index numbers and their construction which should be read by all interested in this important subject. Nothing as good has appeared since Wesley Mitchell's classic, *The Making and Using of Index Numbers* (U.S. Bureau of Labor Statistics, 1921). The two are, indeed, supplementary to a great extent, since Wesley Mitchell was primarily concerned with price index-numbers, and the present authors with an index of volume.

More than half the book is taken up with the principles of index-number construction and their particular application. Too much attention has been paid in the past, following Irving Fisher, to the question of the best formula for an index. It is refreshing to see major emphasis laid here upon the data available in relation to the objects of an index. The object may be satisfied first, and the data selected to conform; or, from an examination of existing data the uses of an index derived from them may be determined. In neither case must we assume that appropriate data will appear by a wave of the wand.

The object of an index of production may be *either* the volume of final goods completed by domestic industry, *or* the amount of work done within industry (Ch. 3). An index of the first type takes no account, and of the second type complete account, of

work in progress throughout the production process. Neither object can be attained with existing data. The index actually constructed is a compromise, using output at a limited number of production stages, *i.e.*, taking account of some but not of all work in progress. In a period like 1946–48, when additions to work in progress declined, the actual index is too low as an approximation to completions and too high as an approximation to work done.

The question of the choice of base year is well handled (Ch. 8). The distinction is clearly drawn between what I term a *change* and a *switch* of base. If the base of an index is changed from 1938 to 1948, for example, then relatives are written on 1948 instead of on 1938 and the weights are changed from values in 1938 to values in 1948. The whole index is changed and needs to be recalculated. On the other hand, a switch of base is merely a rewriting of the series (by straight division through). The weighting is still that of 1938, and all that happens is that 1948 instead of 1938 is the year written as 100.

Among other topics fully and lucidly treated, the question of selection of indicators (here of output) is considered at length. The practical matter is whether to accept a second-rate indicator in the absence of a direct one or to drop the item altogether (Chs. 4 and 5). In the latter case, there is the further question of what to do with the item's weight (Ch. 7). Then there is the question, particularly important in an index of production, of how far to correct for seasonal movements due to the length of the month and the incidence of holidays. The index actually constructed measures the weekly rate of production, allowing for the length of the month, but not for holidays. The alternative index per working day is also shown and further elaborated in the *Bulletin* of the London and Cambridge Economic Service, November 1948.

The main discussion applies to relatively short-run comparisons and it is recommended that a change of base should be made every few years. Some of the problems of longer-run comparison are examined with reference to 1935–46 (Ch. 9). I would have liked a little more on this topic, particularly on the questions concerned with shifts in the " preferences " of purchasers which may make any comparison meaningless (see pp. 71–72).

The second part of the book sets out the details of the London and Cambridge Economic Service index. A very useful appendix shows the coverage of the index in relation to the *Standard Industrial Classification* recently issued by the Central Statistical Office for use in official statistics. There is also a brief survey of the historical statistics of industrial production in the U.K. I

should have welcomed something on the experience in the U.S., an account of production statistics in that country and of the Federal Reserve Board's index of production. The footnote (p. 37) which states that the latter index is " largely based on adjusted series of man-hours worked " is merely tantalising. This is particularly so in view of the fact that, to my knowledge, attempts have been made to derive estimates of changes in productivity by relating this index to employment. It is, however, ungrateful to ask for additions to a book which, though small by number of pages, has clearly involved a great deal of labour.

R. G. D. ALLEN

London School of Economics.

The Location of Economic Activity. By E. M. HOOVER. (New York: McGraw Hill, 1948. Pp. xv + 310. 22*s.* 6*d.*)

DR. HOOVER has long specialised on problems of Industrial Location. His *Location Theory and the Shoe and Leather Industries* published in 1937 was a pioneer work in applied economics, and he contributed in 1943 to the U.S. National Resources Planning Board's *Industrial Location and National Resources.* A text-book on Location by Hoover is greatly to be welcomed; and though the book ranges over a wide field of activity—shopkeeping, dry-goods wholesaling, dairying, warehousing, banking, as well as industry—it certainly does not outstay its welcome. It is easy to read and full of interest, with a judicious admixture of maps, plans and diagrams and few statistical tables.

Location is not treated just as a given situation, a set of " preferences and patterns." Though that is the title of part one, the longest part, other parts deal with change and adjustment, with the effect of political boundaries, and with objectives and public policy. The approach is mainly deductive and, as now orthodox, contrasts the pull on the producer's preference of low transport (or " transfer ") cost of materials or products to or from processing, with the pull of the economies of large-scale processing in one or a few centres. For the United States, Hoover can show maps (pp. 33 and 34) exhibiting striking material " orientation " to avoid transport cost in " procuring " raw materials like the location in the South of the turpentine and rosin, and the cotton-seed products industry, as well as strikingly scattered market orientation, such as that of bread baking and ice manufacture (pp. 37 and 38) to avoid transport to the consumer. On the whole, however, Hoover is inclined to stress the importance of large-scale centres, as such, over against " orienta-

tion " near materials or markets for the product. This is certainly the correct perspective for a small country like Great Britain with narrow climatic range where localisations of industry may thrive in concentrated " conurbations " such as Birmingham and the Black Country without any natural advantage in materials. The exposition of the problems common to industrial concentrations anywhere is particularly well integrated into the general theory in chapters on land use competition, location and the labour market, and the economic structure of communities. The author, while he was at Michigan, clearly made fruitful contact with his sociological colleagues interested in urbanism; and he has incorporated the concept of linkages, of various forms, between industries concentrated in the same area, which was (as he acknowledges) perhaps first put forward in the P.E.P. report on the *Location of Industry in Great Britain* and which has since been developed in the West Midland Group's *Conurbation.*

Dr. Hoover is particularly successful in subordinating hitherto isolated factors under general principles. He does not attempt to build up conclusions from a comprehensive survey of facts and of changes in fact, though such a survey has perhaps become a possibility in the United States with its historical series of censuses distinguishing the distribution in forty-eight standard areas (the States) of three hundred and twenty manufacturing industries and a hundred and fifty retail trades, not to mention the distribution of wholesaling, banking and several other economic activities. An exception to his deductive approach, is Dr. Hoover's attempt (pp. 82–89) to use official statistics of the comparative importance of branch-plant firms in different industries, to prove the limitation on size of firms imposed by the management factor. His argument is that industries where firms with only one plant predominate are industries where management difficulties limit the size of firms. But, surely, the factors here concerned are not properly isolated. A firm will have many plants in order to tap a scattered material supply which is relatively costly in transport, not necessarily because management is easy. The extreme cases in the census, cited by Hoover, such as beet sugar and coke-oven and petroleum products, all come under this head. On the other hand, the extreme cases where firms have predominantly one plant are industries dealing in light products, mainly clothing, where transport cost is negligible and there is no point in a firm scattering factories, whether easy to manage or not. The original factory may just as well be extended.

With America in the mood of private enterprise, or possibly

just on the turn away from it, it is particularly interesting to reach the five last chapters devoted to objectives and public policy. Just as in Britain, technical changes have created " problem " areas in America (well illustrated by maps in Chapter 11) such as the old cotton belt and the deforested "Cutover" region west and south of Lake Superior. Public policies to solve the problems of a problem area must, as Hoover argues *pro* and *con*, either move workers out of the area or jobs into it. If jobs are moved in, they must be carefully selected, and Hoover aptly quotes recommendations in the survey of Worcester (Eng. not Mass.) embodied in *County Town*, as an example of " selective promotion programmes," the principles of which are applicable elsewhere.

This book forms such an admirable manual book for students prepared to look up sources, that it is unfortunate that the index is not more consistent. Several authors referred to in the text are omitted altogether, including G. E. McLaughlin, pp. 159 (two footnotes), 161 and 163 (five footnotes), and Professor A. J. Brown (p. 187). Other authors have some references to them indexed, some not.

P. SARGANT FLORENCE

University of Birmingham.

The Economics of Disturbance. By DAVID McCORD WRIGHT. (New York and London: Macmillan Company, 1947. Pp. viii + 115. 12*s.* 6*d.*)

THIS is a disturbing book, dedicated to the planners of the future by one who believes in a moderate degree of price and output stabilisation as a desideratum but who goes to some length to show the array of frictions which simple economic adjustments entail and the distortions, secular and cyclical, which are bound up with changing saving and consumption habits and varying investment opportunities. To show the complex adjustments inseparable from economic growth is one aim of the book, and here the author draws upon the existing body of economic theory and attempts a " coherent synthesis " of the possible sources of disturbance. The second purpose (addressed to the planners) is to demonstrate that such disturbances raise their ugly head in capitalist and socialist economies alike and cannot be easily eliminated from either system by planning which takes freedom of consumer's choice as a basic tenet. The essence of this subsidiary thesis can be given in one quotation: " No amount of

comprehensive *ex ante* planning, which also wished to give the consumer *what* he wanted *when* he wanted it, could succeed in smoothing out the aggregate demand for investment. Inevitably the policy which it would be led to adopt (assuming that a really *bona fide* effort is made to meet the consumer) is the despised capitalist policy of compensatory public works, etc. In other words the inevitable discontinuities of rapid capitalist growth would remain inevitable in rapid socialist growth, but during the intervals between bursts, the planners could organise various social desires for durable goods to fill in the gap. Compensatory policy then is not a mere crutch for a decadent capitalism."

There is some truth in this, but it is less than the full story. Professor Wright puts up a planner *à outrance* who aims at complete stability and security, and then takes great pains to give him a knockout blow. His brand of planning "attempts merely to fill in and prevent severe depressions." This is clearly too vague and not very illuminating for policy makers of the post-war period, whether they are labouring in O.E.E.C. or in the planning bodies of Great Britain.

The analysis of the process of expansion and adjustment begins with a simplified model of a stationary society and is followed, after a digression into the effects of discontinuous and continuous rates of savings and into monetary adjustments to growth, by a less rigorous analysis of simple expansion (widening) shading over into an investigation of disturbances associated with deepening innovations and changes in tastes. The book then returns to the problems of savings and investment and cyclical fluctuations.

Mere widening is shown to lead to more or less serious frictions. "In an expanding society prices marked up, looking forward, even though set by the best accounting practice, are not necessarily matched by the disbursement of equal current disposable income." This can only be avoided if there is a more or less constant expansion of bank credit to consumers as well as to producers. Such expansion, even without technical changes, will entail a constant shift of production methods and hence in factor combinations and unforeseeable changes in demand. If the various rates of expansion and contraction of different industries do not offset one another, a net decline of employment and income will ensue. This might be aggravated by changing investment opportunities, for there is no spontaneous mechanism which would adjust saving habits to the moving limits of investment opportunities. In order to achieve greater stabilisation, planners would have to induce

rapid fluctuations in saving habits or must seek to smooth out the investment demand.

Frictions and cyclical swings, sudden jumps and gradual adjustments are given similar weight in this synthesis of the sources of disturbances. The self-righting forces of the system, though perhaps working imperfectly and slowly, even when changes are gradual and small, are under-emphasised, and inadequate allowance is made for tolerances inherent in any system. One wonders, and so does the author intermittently, that the rapid widening and deepening of the international economy in the nineteenth century worked so smoothly when the myriad of potential disturbances should have decreed chaos.

The question why the system worked reasonably well in the nineteenth century and creaked badly in the twentieth is not squarely faced. The difficult adjustments which, for instance, the British economy had to make under the impact of World Wars I and II, the disturbances which resulted from short-term lending and inter-war trade policies, and the inflationary troubles of post-war Europe are by-passed. The demand for a positive and regulating economic policy stems from such major disturbances which therefore would have deserved closer study, just because they do not fit easily into the general and simplified models of the book. A more empirical theory of the long-run changes in industrial development is needed. Professor Wright is aware of this need and hopes that others will continue where he left off.

F. A. BURCHARDT

Institute of Statistics,
Oxford.

Interest and Usury. By BERNARD W. DEMPSEY. (London : Dennis Dobson, 1948. Pp. x + 233. 12*s*. 6*d*.)

"THIS study attempts to compare two distinct schools of economic doctrine," although "medieval and modern writers on interest apparently have little in common except the subject to which they address themselves." The medieval writer scanned the facts to see what, given such and such conditions, was right and just. The modern writer looks at the facts to see what will be "sound policy."

The first half of the book expounds the theories of a selection of modern economists on interest, Wicksell, Mises, Hayek, Schumpeter, Keynes. There follow three chapters on the work of three writers, Molina, Lessius and Lugo, who discussed the

question of usury in the sixteenth and seventeenth centuries, a period "which faced the beginnings of modern problems with traditional analytical devices." Two final chapters examine the applicability of the Scholastic doctrines to modern problems.

The most valuable part of the book is the clear and concise exposition of the late scholastic doctrines. The account of modern doctrines is not so satisfactory. The authorities chosen, eminent though they are, have their weaknesses. They fail to distinguish sufficiently between the long-term and short-term rates of interest and between instrumental and working capital. Wicksell, indeed, concentrated on working capital and the short-term rate of interest, but he never took account of the possibility of varying the amount of working capital held without affecting the operations of the business as a whole. He devoted his ingenuity to explaining how a loss or gain of a small fraction of one per cent on the output of a concern could start a substantial movement. Father Dempsey accepts Wicksell's special pleading and is content to elaborate his illustrative cases, without raising this important question (pp. 17–23).

Among his representatives of modern theory he has omitted Marshall, and it is unfortunate that those chosen are one and all open to the criticism that they depart from Marshall's explanation of interest as the marginal yield of *instruments of production*, and identify it with the marginal yield of *enterprises*. But of course when he comes to make comparison with the Scholastics, such distinctions can be neglected.

The Scholastics of the sixteenth century were confronted with the fact that a *market* in the rate of interest had grown up. The merchants dealing at Antwerp had brought a money market into being. The medieval Church had come to the conclusion that the "just price" of a commodity was simply the market price, provided there were genuinely free dealing. If the moral problems of buying and selling could be settled by a free market, could not those of borrowing and lending?

To justify the lending merchant in exacting interest, the doctrine of *lucrum cessans* was adduced. The lender was foregoing the profit he might have made by using the money. Moreover, "even if, through the privation of money for a year, there is no gain of mine that stops, and no risk of capital, because such a price for just causes has been put upon this privation, I may demand it just as the rest do" (quoted from Lessius, p. 160). Even without the supposition of a market rate of interest, a more sweeping doctrine was being put forward: that "a charge may

be made for the obligation of not demanding the return of the money for a given period " (p. 165).

Here is a view corresponding closely with Keynes's that " the rate of interest is the reward for parting with liquidity for a specified period " (quoted on p. 94), but it did not commend itself to Father Dempsey's selected Scholastics. They insisted that interest could not be rightly charged unless the lender suffered *lucrum cessans* or *damnum emergens*, and the need or gain of the borrower ought not to be taken into account. That principle, which is the negation of the market, Father Dempsey applies to the bank which lends by creating credit out of nothing.

A naïve conclusion. He cannot but be aware that banks render a costly service to their customers, and that they pay interest on a part (sometimes on the whole) of their deposits. To forego interest when lending to a needy borrower is an act of kindness. To determine the rate charged to a profit-making borrower by the circumstances of the lender would introduce chaos into business.

The issue is one of casuistry, the interpretation of a moral rule. " Murder " is forbidden, but murder is a legal concept; there may be innocent or justifiable homicides. Similarly if " usury " is forbidden, we want to know what usury is. According to Lugo, " the position was almost universal—the common opinion of theologians and canonists—that usury was forbidden by the natural law and by this alone " (p. 165). The only possible test of a " natural " moral law, as distinguished from what claims to be revealed, is whether it conduces on the whole to the benefit of human society.

R. G. Hawtrey

Chatham House,
London.

Beperkte Concurrentie. By J. Tinbergen. (Capita Selecta der Economie I, edited by S. Posthuma). (Leiden : Stenfert Kroese, 1946. 9″. Pp. 152. F. 6.50.)

Professor Tinbergen's slim monograph on Imperfect Competition is to be judged as an intermediate text-book rather than as an original contribution. Nevertheless, a certain amount of new ground is broken in an interesting final chapter, where elementary econometric tools are applied to test the practical significance of the preceding theoretical analysis.

In the theoretical sections the emphasis is largely on the methods made familiar by von Stackleberg in *Marktform und*

Gleichgewicht. Monopoly, duopoly, oligopoly, bilateral monopoly and competition are elegantly handled—both in the text and in an extensive mathematical appendix, where the average economist's " little potted calculus " is put to some very neat uses. Separate chapters are devoted to the problems of related markets and to the stability conditions in a single market. The latter should provide the new-comer to the subject with a useful background to modern micro-dynamics.

In a book of a hundred and fifty pages gaps are inevitable. In this instance the two gravest relate to advertising and selling costs (which are barely mentioned) and the complete neglect of uncertainty. The latter omission is particularly unfortunate. For example, it is very often only when regard is paid to the uncertainty inherent in any actual market situation that the observed stability of some non-competitive prices can be reconciled at all comfortably with changing costs and shifting demands. Dr. Tinbergen is forced to have recourse to such explanations as the " administrative disadvantages " (p. 71) of frequent price adjustments. This is all very well. But surely there is a little more to it ? To what extent does oligopoly inevitably stimulate non-price competition—small changes in quality, in advertising campaigns, in conditions of sale ? To what extent are rigid prices an essential part of an oligopolist's optimum overall strategy—a strategy designed especially to cope with the changes and chances of this fleeting world ? These are important questions, and the student should be encouraged to ponder them, but Dr. Tinbergen does not give him the lead he is entitled to expect.

In the final chapter on the practical significance of the theories of imperfect competition a good deal of statistical material (relating primarily, but not exclusively, to Holland) is examined. For instance, the average ratio of dividends to nominal capital in monopolistic industries is shown to be nearly twice as high as in competitive ones (p. 121). The criteria used in the classification of industries into these two categories are, however, unfortunately not revealed. Again, the results of an extremely interesting econometric study of the market for wire nails are given (pp. 107–11). Use is made of the concept of " quota-elasticity of substitution." Numerous rather low values (*i.e.*, numerically less than 3) of this coefficient are obtained. The conclusion is reached that the competition between supplies drawn to the Dutch market from Belgian, German, French and Dutch factories is far from homogeneous—for homogeneity implies that the

" quota-elasticity of substitution " be infinitely great. The average reader is, however, almost certain to be a little puzzled by the analysis. He will wonder just how the " quota-elasticity " differs from the " usual elasticity " of substitution. The explanation given on p. 100 is rather terse; but fortunately Dr. Tinbergen has subsequently published a fuller treatment (" Some Measurements of Elasticities of Substitution," *Review of Economic Statistics* August 1946, p. 110), and to this the serious student should be guided. On the question of whether or not a plausible case has been made (pp. 103–4) for omitting income from the independent variables in an investigation of this nature, he should likewise be guided to Dr. Chang's recent contribution (Tse Chun Chang, " A Statistical Note on World Demand for Exports," *Review of Economics and Statistics*, May 1948, p. 110, footnote 10).

If the foregoing comments have appeared critical, they should not be taken to imply that *Beperkte Concurrentie* is likely to prove an unsatisfactory text-book. Indeed, few will read it altogether without profit, for it abounds in shrewd, if scattered, comments on the existing state of theory. Dr. Tinbergen has made yet another contribution of the quality we have come to associate with him.

J. DE V. GRAAFF

St. John's College,
Cambridge.

Enterprise First. By W. WALLACE. (London: Longmans, Green, 1946. Pp. 112. 8*s.* 6*d.*)

MR. WALLACE writes with the unusual combination of qualifications of one who has been an economist, a director of Rowntree and a senior official of the Ministry of Food. Thus he can approach the problems of the relations of government to industry without prejudice and without the preconceptions, born of ignorance of the habits of thought and work of the various parties, which colour so much of what is published on this question.

He begins by stating the objectives as he sees them: that industry should be owned, organised and operated so as to serve the widest interests of the community; that to this end it should be conducted at the highest possible level of efficiency; that it should offer conditions to all grades of workers as favourable as they might enjoy under any other system; that it should offer consumers adequate freedom of choice of goods at reasonable prices; that it should do this without subsidy and while paying an adequate return on capital and an adequate reward for enterprise

and risk-bearing; that it should offer full opportunity to ability and reasonable personal security and freedom of choice of occupation.

Mr. Wallace goes on to consider how far nationalisation, on the one hand, and complete *laisser faire*, on the other, will secure these objectives. He rejects both these solutions: the first, because industrial enterprise must, in his view, involve rapid decision and devolution of responsibility, accompanied by trust of those who can produce results and elimination of those who cannot; the second, because, in practice, if not in the theories of academic writers, uncontrolled industrial *laisser faire* is apt to degenerate into price understandings, suppression of patents and private monopolies. He advocates therefore a middle way.

In the field of economics, the normal aim should be to seek the means best calculated to secure efficiency and enterprise. Where this involves nationalisation let us not hesitate to adopt it. But outside the rather narrow limits within which it is demonstrably best, the main task of the State must be to ensure that private enterprise does not conflict with public interest. It should be the task of the State to safeguard the interests both of producers and consumers. For producers it should lay down minimum conditions, and to see to the well-being of all classes, not excluding "that very limited number in any community who possess creative ability, imagination, vision, courage and drive: in brief, those who, in fact, under any organisation of society determine the level of efficiency and the rate of progress." Consumers must be protected against exploitation by laying down minimum standards for products, but not by attempting absolute standardisation where progress will be inhibited by it. They must be protected against monopoly by strengthening of the legislation against it and effective supervision. But the State should not be merely negative in its attitude to private industry; it should actively encourage enterprise and it should provide the economic background of policy, in regard to full employment, the balance of payments and similar issues, against which private industry should work.

To enable the State to perform its functions, Mr. Wallace advocates a Ministry of Industry to advise industries on general policy and to watch restrictive practices. For this work, and for work in the nationalised industries, he would like to see the Civil Servants with the traditional accomplishments and qualities of impartiality and general administrative experience supplemented

by a body of industrial Civil Servants with special knowledge and experience in industrial affairs.

The above is a very compressed and bald summary of the ideas that Mr. Wallace presents with a considerable wealth of illustration from his own war-time experience on the Ministry of Food and from other sources. The book was written over a long period during the war years, and is only now belatedly reviewed. Many of the ideas that he advocates are already in process of fulfilment. Others obviously deserve close examination. For, whatever our political doctrines, it now seems likely that the United Kingdom will live for a good many years to come in the twilight region between pure *laisser faire* and pure socialism. That is the system that we have to make work. The issues that Mr. Wallace discusses, for instance, of the recruitment and responsibilities of boards of nationalised industries are of great immediate urgency. A book by anyone of his experience deserves most careful consideration.

AUSTIN ROBINSON

Sidney Sussex College,
Cambridge.

The Truth about Publishing. By SIR STANLEY UNWIN. (London: Allen and Unwin, 1946. Pp. 352. 8*s.* 6*d.*)

THE ordinary teacher of economics finds himself concerned with the applications of his trade far more often in the field of publishing than in any other. If Charles Babbage—after Malthus, the first of our Cambridge economists—was led to his study of the Economy of Manufactures by the problems which confronted him in the construction of his calculating-engine, it was the problems of the publication of his book, and his disputes with the booksellers which provided him with material for his arguments.

Sir Stanley Unwin's book will, therefore, be read by economists with a special interest. It is a new edition, revised and brought up to date, of a book, first written in 1926. Alas, in one respect, he has not been able to bring it up to date. The prices and costs which he uses to illustrate his arguments belong to a past age, and are but a fraction of the comparable costs to-day. He writes, inevitably and properly, as a publisher. His purpose is to persuade authors that publishers, or at any rate good publishers, do not make fortunes by exploiting them. Almost all that he has to say is good, sensible and true. But I suspect that an author, reading his book, will feel that he protests just a little too much. Nevertheless, it will do us all good to see ourselves for once through the eyes of a publisher who has to take our literary efforts

and to make his living by selling them to a world which shows little desire to part with its money in exchange for our writings.

When a reader has finished he will, I suspect, feel sorry not only for himself but also for his publisher. But I am sure that he will be asking himself whether the division of the proceeds of making and selling a book is quite what it should be. The author, if he is on a royalty basis, may get 10% or a little more, of what the buyer pays. The bookseller will get a third—or not far short of it. There are advertising costs and possibly middlemen as well to take their share. The publisher gets little more than half the published price to cover all the costs of printing and publishing. Does this represent a fair division? Is authorship worth less than a third of retail salesmanship per copy?

The risks of publishing are great. Errors of judgment about the quality of a manuscript, the sales that may be expected, the right edition to print may land a publisher in big losses. The winners are comparatively few. It is a trade into which many enter, many pass out, and few survive. Those few, not only because their judgment is better but also because authors have learned to trust them.

This is partly because fixed costs are a very high proportion of all costs. For a novel of 95,000 words, printing 1500 copies (more than a first novel would be at all likely to sell and more than twice the number that a serious academic work would usually sell) the fixed costs represent about two thirds of the total costs of the publisher. If the book is a failure, or if the price is misjudged, only a fraction of this fixed cost may be recovered. The fixed cost can, moreover, be greatly increased by excessive corrections.

To an economist, reading between the lines of Sir Stanley Unwin's book, a number of fascinating questions emerge. Authors are always optimists. They almost invariably overestimate the potential demand for their intellectual offspring. They almost always believe that the demand for their works is far more elastic than it really is in these days of libraries. They almost all have a childish faith in the efficacy and profitability of advertisement —underestimating its expense and overestimating its consequences. In short (and my own small experience in the world of publishing would confirm this) authors almost always strive to secure that their books shall be published at prices which will do something very much less than maximise their profits, and often at prices at which it is rather improbable that author and publisher together will break even.

It is interesting to ask oneself why this should be so. Are all

innovators natural optimists? Are prices consistently fixed at levels far too low to maximise profits by people who have a simple faith in the virtues and saleabilities of their own products? Or is it that there is a real conflict of interest between author and publisher? Do authors look, in general, to derive the true profits of authorship otherwise than from their royalties; by university appointments, lecture tours, broadcasting and the like? Or is it just that an author's sense of values is different? That he would sooner be a poor writer with a large public than a rich writer with a small public?

These are speculations far beyond the range of Sir Stanley Unwin's immediate problems. He is, in the main but by no means exclusively, concerned with the more mundane problems of agreements, American rights, the methods of subscription and distribution of books, and with the technical problems of making a book. Every author or potential author will read him not only with intellectual profit, but almost certainly also with financial profit. And how much easier a publisher's job would be if all authors showed as much competence in matters of publishing as Sir Stanley shows in the tasks of authorship.

AUSTIN ROBINSON

Sidney Sussex College,
Cambridge.

British Trade Unionism: Six Studies by P.E.P. (London: Political and Economic Planning, 1948. Pp. 184. 15*s*.)

THE publication of a full-length report by P.E.P. on British Trade Unionism is perhaps itself an indication of the new status of the trade-union movement in this country. Some knowledge of the views, policy and structure of the trade-union movement is now a necessity for anyone wishing to progress beyond the stage of first generalisations regarding current economic and political issues. Many will no doubt say that this recognition is long overdue. Others may suggest that the present interest in these problems arises from the shortage of manpower rather than from a full recognition of the role to be played by unions in society and can point to a somewhat similar concentration for a few brief years on the "labour question," as it was then called, after the 1914–18 war. Be that as it may, the tide is high, and it is of some importance that the opportunities are used to the best advantage.

No statement on the British trade-union movement can be made without some reference to its complexity. From the Webbs onwards, every writer has pointed out that the British movement

reflects in its present-day structure and policy past incidents, personalities, struggles and fears as well as present-day problems. And each union has a different past. This is the biggest single obstacle to the research worker. The preliminary tour of the movement takes so long and the effort to grasp the differences between unions is so exhausting that either the enthusiasm wanes or the research ends by becoming a general survey, summarising what exists but saying little very new or penetrating. Such summaries, however, providing they are intelligently presented and attempt to formulate problems rather than to suggest that all is known, can be of very great value to those following. These studies by P.E.P. come into this category.

At the outset of this volume other hopes of some entirely new thinking on trade-union questions are raised. Reference is made in the preface to the concept that trade unions are not a homogeneous whole but rather comprised of three distinct levels or layers, the first level being that of the head office and prominent officials, the second that of the branch officials, shop stewards and active branch and workshop membership, and the third being the comparatively inactive rank and file. The first study on Trade Union Structure, with the help of some interesting and ingeniously used statistics of branch attendance and of the size of branches and biographies of full-time officials, develops this theme in some detail. The changing character and qualities of the full-time official are discussed, and for the trade-union movement as a whole it is suggested that only some 20% of the members are active, attending meetings, discussing and voting on policy and taking part in the election of officers, the remaining 80% being content to pay dues and, except on rare occasions, to accept what is done in their name. Further, some evidence is produced to show that there is some conflict between each of these three levels. These phenomena of an active minority and an inactive rank and file, are not, of course, confined to trade unions, but exist in practically all democratic institutions. The growth in the size of the leading trade unions in the past twenty years, and the increase in the influence of trade unions on economic and political policy may make pertinent a closer examination of the stratification in these organisations, and the character and size of trade unions make experiment and research possible.

The suggestions made by P.E.P. are, of course, put forward tentatively, and stress is laid on the need for further research. Among the many questions to be asked are, for example, the changes in the composition of the 20% active members over time,

and the extent to which individual 20 per centers become 80 per centers and vice versa. The rate of turnover of membership, presumably among the 80%, requires closer examination, and also the effect on industrial relations of the doubling of the number of active trade unionists in the last ten years which would appear to have accompanied the doubling of trade-union membership. Further investigation along these lines might yield results which would be of value not only to trade unions but to all organisations faced with the problem of avoiding bureaucracy and rigidity. It would certainly appear from the incomplete data produced in this study that the tendency of trade unions in fact, if not in ruling, to concentrate policy-making in a few hands while the majority of the membership are merely urged to carry out an agreed policy, is not only unsatisfactory but can lead to disunity and a weakening of trade-union influence.

The other studies in this volume tend to drop the three-level approach and concentrate on providing a general survey of trade-union organisations and industrial relations in this country. The main headings, which are as follows, indicate the scope: The Formal Machinery of Negotiation, The Subjects of Negotiation, The Organisation and Policy of the Trades Union Congress, and the Relations of the Trade Union Movement with the Labour Party, with Employers' Organisations and with the Government, and an account of Relations on the Job, dealing with shop stewards and joint consultation. The tour is, on the whole, well conducted, and the salient features of trade-union organisations and industrial relations stand out well, and the use of some history, though a little potted and distorted at times, gives a glimpse of perspective. Some aspects receive more interesting treatment than others. The discussion of wages is very effective, as is the discussion of relations between the trade-union movement and the Labour Party, but the treatment of other subjects such as apprenticeship, the International Labour Organisation and the World Federation of Trade Unions is so cursory that nothing would have been lost by omission. The report is not entirely factual, and some shrewd and apposite comments are made on many issues, but occasionally the reader is irritated by little sermons which appear to spring from the conviction of the authors rather than from the facts given in the text. In the discussion on shop stewards, for example, we are told to draw a distinction between those stewards who are the mainstay of their union and those who obtain temporary individual prominence—whatever that may mean. No evidence whatsoever is produced as to the existence of these

two groups beyond an implication that the latter, for some reason, are always Communists.

The last study in the volume pulls together the threads of the earlier studies and discusses the present and future problems and tasks of the trade-union movement. The limit of thirty pages restricts the development of many of the ideas outlined, but taken all round this is a competent and useful summary of the main questions. To go further, and this is the task presented by the volume as a whole, requires some measure of specialisation. The pre-war studies on industrial relations and trade unions have, by the publication of this and other volumes in the last year or so, been brought up to date. Everyone knows that the trade unions are facing new tasks and responsibilities. The job to be done now is to make a much closer examination, both in relation to the past and present, of the many vital issues touched on in this volume.

J. B. JEFFERYS

National Institute of Economic and Social Research, London.

Trade Union Wage Policy. By ARTHUR M. ROSS. (Berkeley and Los Angeles: University of California Press, 1948. Pp. viii + 133. $3.00.)

THIS book claims to deal only with the behaviour of American trade unions in recent years, and the author expressly disclaims any timeless validity for his judgments. The particular influences affecting trade-union organisation and collective bargaining in the U.S.A. at the present time, to which the author draws attention, would, for example, render it extremely hazardous to attempt the automatic extension of some of his conclusions to the situation as it exists in Britain to-day.

The real leaders of the British trade-union movement would be the last to claim for it that its present structure results in complete internal harmony and order, but it offers no parallel to the struggles for control of individual trade unions or the dissensions between central organisations which exist in the U.S.A. The British trade-union leader need no longer direct the major policy of his union to safeguarding his own position and the very existence of his union—as apparently the American trade-union leader must—against constant threats from rival leaders, rival unions, legislative action and employer opposition. The typical wage bargain in Britain covers a larger segment of the economy

than is the case in the U.S.A., despite increasing tendency even in that country to centralisation of collective bargaining. Nor are there in the U.S.A. even the remote glimmerings of a centralised trade-union wage-policy such as are beginning to emerge in Britain under the guidance of the Trades Union Congress as the result of Government exhortation. Moreover, it can hardly be said of British trade unions, as the author says of all important American trade unions, that their practical wage decisions presuppose the indefinite prolongation of capitalistic economic organisation.

Despite such fundamental differences, however, the searching analysis of the bases of industrial relations which this book contains is of far wider interest than would be a mere study of American trade unions. The author's main contention is that the conception of a trade union as a seller of labour attempting to maximise some measurable object, such as the wage bill, is highly misleading and that the trade union should be regarded rather as a political institution which participates in the establishment of wage rates. He argues that, while the formal purpose of the trade union is to augment the economic welfare of its members, it must always have before it a more vital institutional objective—survival and growth—and that this will take precedence whenever it comes into conflict with the formal purpose.

In reply to this, however, it might well be argued that survival and growth of the trade union can never come into conflict with the formal object of augmenting the economic welfare of the members, but are the fundamental conditions for its being able to achieve that object. If from time to time a trade-union leader is " far-sighted," if from time to time a trade union adopts a " responsible " wages policy, and even if the immediate object is, by placating employers and public opinion, to ensure survival, the ultimate object may still be, by that very survival, to be able to strive for the economic welfare of the members. In support of his view that the institutional objective will be preferred to the formal objective, the author argues too that a trade union will prefer to attain higher real wages through higher money wages rather than through lower prices, because it is easier for it to claim credit for the former method than the latter. Even if this alleged preference and the reason for it be true—and there is a good deal of evidence in support of the author's view—and even if such a course is less consistent with the economic welfare of the members of the trade union in question—although the point is debatable—such tactics are surely not inconsistent with the ultimate objective

of enhancing the economic welfare of the members, but are rather an integral part of it.

Trade-union wage-policy the author regards as a function of leadership, in the formulation and execution of which the trade-union official must harmonise various pressures emanating from sources both within and without the union in such a manner as to contribute most to the survival and growth of the organisation. In the process there are the elements of conflict with democracy which in a trade union, the author says, " like competition in the product market is universally the object of reverence but is not specially enjoyable to those who must reckon with it." When to press for a wage advance, when to accept a wage reduction, and in either case of how much, are not suitable matters for decision of rank and file and " to expect a rank and file determination of bargaining strategy is about as plausible as to expect the Government of the United States to conduct its foreign policy through a monthly plebiscite of registered voters."

Policy-making in a modern trade union, the author suggests, is little suited to the methods of primitive democracy. The arguments he advances are a valuable contribution towards the realisation of this fact. The willing acceptance by the rank and file of its full implications is possibly the greatest problem facing trade unionism to-day, both here and in America.

H. S. KIRKALDY

Queens' College,
Cambridge.

British Block Grants and Central–Local Finance. By R. E. CARLSON. *Studies in Historical and Political Science.* Vol. LXV, No. 1. (Baltimore: Johns Hopkins Press, 1947.) Pp. 222. $2.50.

IT must always be very difficult for an outsider to grasp the significance and nuances of such intimate features of another country as are implied in its central–local fiscal relations, at least without extensive personal contacts. Professor Carlson has been singularly unlucky in the timing of his study of the British system of Exchequer Grants to Local Authorities. The war prevented him not merely from making such contacts, but also from obtaining access to a number of research studies relevant to his subject. It also greatly delayed not merely the completion of the work, which bears somewhat obvious signs of having been written at different periods, but also, it would appear, its publication. In spite of the use in the last chapter of an article on derating which was published early in 1945, the analysis of the book essentially

ends with 1944. Unfortunately for Professor Carlson, almost every item in the flood of legislation which has crowded the Statute Book since 1945 affects the financial position of Local Authorities in some way, while the grant provisions of the Local Government Act have turned the subject of his thesis on its head.

Professor Carlson first traces the development of exchequer assistance to local authorities from the Goschen era to the Local Government Act of 1929. In this he relies mainly on secondary sources (especially Dr. Newcomer's *Central and Local Finance*, and my own *Finance of British Government*). There follows a chapter on central–local financial relations in the Second World War, which is perhaps the best in the book. Professor Carlson has worked carefully through the documents, and the whole sordid story of A.R.P. grant discussions is set out fully. This is succeeded by a chapter on post-war plans for local-government reconstruction, in which most weight is given to those of N.A.L.G.O. and the Labour Party. Finally, we have an appraisal of the longer period effects of the Act of 1929, based largely on the I.M.T.A. study of Derating by Atkinson, Abel and Pollard.

While it is not easy to convict Professor Carlson of actual errors of fact, the emphasis not infrequently gives a misleading impression. It is somewhat exaggerated, for instance, to refer to the modest under-balancing of the budget in 1929–30 as "huge deficits," or to regard expenditure on a social service, which over 60 years has expanded by £120 million, as "skyrocketing." Again, it is the reverse of the truth to state that since 1890 new *ad hoc* bodies have continually been created to deal with new services. The relation of the sparsity weight in the grant formula (and its intensification for very sparse areas in the new Local Government Act) to the increasing demand for equality in service standards is also missed. It is not only highways that cost more where population is thin, but every service is necessarily more costly per head; children must be transported long distances to school, district nurses must have cars, and so on. To take one final example, whatever one's views as to the diseconomies of of small- (or large-) scale organisation in local government, it is surely misleading to talk of the "diminutive size" of any British Local Authorities, in view of the process of concentration of administration under county councils and county borough councils, which has now been proceeding for a generation.

The most serious drawback to Professor Carlson's study, however, is of course the absence of any reference to the revolution in central–local finance which has taken place since 1945. For the

next few years at any rate we are likely to be kept so busy adjusting ourselves to the new look that we are unlikely to have much time to spare for dwelling on the old.

URSULA K. HICKS.

Oxford.

Analysis of Wisconsin Income. By FRANK A. HANNA, JOSEPH A. PECHMAN and SIDNEY M. LERNER. Studies in Income and Wealth. Vol. 9. (New York : National Bureau of Economic Research, 1948. Pp. xviii + 261. $3.50.)

DURING the thirties, the Conference on Income and Wealth was instrumental in developing a series of projects for the study of income in various states of the United States, which have provided most valuable data for use as source material in analysis of the structure and distribution of income. The studies contained in the present volume rely on a series of rearrangements and re-tabulations of Wisconsin income-tax returns for the years 1929–36 which were among the projects undertaken. They subject the results of these tabulations to a most detailed analysis with the purpose of exploring certain structural relationships and of testing certain hypotheses as to the behaviour of incomes.

Anyone familiar with this type of investigation cannot fail to be impressed by the intensive methods of analysis used and the meticulous care with which these methods are applied, nor to be filled with envy for the mechanical aids (such as punch-card tabulations) which were available. There is no doubt that, with the application of such resources, many stubborn economic problems might prove susceptible of solution.

However, intensive analysis is by no means the sole requirement to reach significant conclusions. In this instance, as in much empirical research in the field of economics, difficulties arise from the complexity of the factors involved and from the limitations of the available data. It is for these reasons, and certainly not for neglect of any means of attack, that no broad conclusions emerge from the studies. As Milton Friedman suggests in his very interesting foreword "they answer few questions," but derive their significance "rather from the new questions they raise and the supposedly settled questions they reopen." This is undoubtedly a valid justification for what must have been a very laborious research project. It was in the nature of the data that no solutions of general applicability could be expected.

The volume consists of three parts. Part I, by all three authors, provides an estimate of aggregate income in Wisconsin

and its size distribution by individual recipients during the year 1936. The intention was to explore the methods available to build such an estimate from income-tax, social security and other data rather than from family budget studies. The result is a masterly example of the techniques which may be employed in piecing together data from a variety of sources, but it clearly reveals the limitations implicit in such a process. The range of error involved is indicated by the fact that the resulting estimate of the number of income recipients in 1936 is considerably higher than the total number of persons in the labour force in 1940 (as reported by the Bureau of the Census), at a time when the level of employment was higher.

This raises the question, which is perhaps one of the most interesting theoretical points suggested by the study, as to the appropriate definition of an income recipient in an analysis of income distribution. There can be little argument with Milton Friedman's view that the significant unit for a study of income distribution is the family rather than the individual. For purposes of economic policy or of functional analysis, it is the family as a spending unit on which interest centres. It is of little significance, for example, that 23,000 members of school boards in Wisconsin received approximately $15 a year each, and, in so far as such payments are treated as the sole income of the recipients, they tend to produce misleading results from the point of view of welfare. The authors are well aware of the disadvantages of an income distribution based on individual recipients, but found that the data would not enable them to treat the family as the unit (p. 20).

Part II is the work of Joseph A. Pechman. The purpose of this section is to investigate the extent to which changes in the size distribution of income can be inferred from changes in the functional distribution, as represented by changes in the distribution by type of income payment. Dr. Pechman's analysis suggests that on the basis of present knowledge there is considerable danger in drawing any conclusion as to the effect on personal distribution of a change in functional distribution. Dealing with wages and salaries, the most important income share, he concludes that only if both aggregate income and the share of wages and salaries increase, is there even a presumption of a decrease in inequality, and vice versa. This conclusion is based on his finding that the composition of income at specific income levels tends to remain stable over time, a finding which cannot be regarded as incontestable, depending as it does on data covering only a pro-

portion of income recipients (income-tax filers) over a limited period of years. It is a surprising finding for a period which extends from the peak of the boom in 1929 to the low point of the succeeding depression.

Part III, by Frank Hanna, deals with the effects upon size distribution of lengthening the accounting period. This is an interesting point, since the year is obviously an arbitrary period of measurement convenient for practical reasons. As would be expected, Dr. Hanna finds some tendency for the distribution to move towards greater equality as the accounting period is lengthened. However, his results are biased to an unknown extent by the fact that the investigation covers a sample representing only those taxpayers who filed continuously during the seven years under study. The movement in the Lorenz curve towards greater equality as the accounting period is lengthened has obvious implications from the point of view of welfare, particularly in comparison between different communities. It is doubtful, however, if measures of economic policy could ever take into consideration an accounting period longer than a year. In countries where seasonal fluctuations are of importance, it is even conceivable that the possible increase in inequality through shortening the accounting period might be of greater significance in practical policy.

AGATHA L. CHAPMAN

Department of Applied Economics,
Cambridge.

Private Investment in a Controlled Economy—Germany 1933–1939. By SAMUEL LURIÉ. (New York: Columbia University Press (London: Geoffrey Cumberlege), 1947. Pp. xvi + 243. 16s.)

THAT, outside U.S.S.R. and the satellite countries, the major industrial economies of the twentieth century will be " mixed " or " controlled " economies, with a bias towards full-employment policies, is the belief, or the hope, of most modern economists. But, with all respect to the neat and tidy Keynesian models, fitted out with automatic compensations, modified income taxes, functional finance and the rest, there lurks a fear, too rarely expressed, that the control of private investment may yet prove the nigger in the wood-pile. How much forrader are we since Keynes advocated a somewhat comprehensive socialisation of investment ?

Once we have dissociated ourselves from the ends of Nazi economics we are entitled to look, as Professor J. M. Clark puts

it in his introduction, at " some of their skilfully designed mechanisms (which) may prove usable for radically different ends." The reader who, seeing the title of Dr. Lurié's book, seeks within its pages light on this general question will be disappointed. It is not that kind of study. Under the narrower title " Private investment in Germany 1933–1939 " there would be no cause for complaint.

Dr. Lurié evidently believes in letting the facts speak for themselves, and he has written a useful and scholarly study of private investment in pre-war Germany under the Nazis, firmly based upon 585 footnotes. Except in his all too brief conclusions, only rarely does he allow a personal opinion or a critical judgment to illuminate or interrupt the orderly march of events.

The opening chapters follow the fairly well-trodden paths of German economic recovery after 1933, through Work-Creation to the rearmament phase. The author points out that in the earlier stages of recovery, private investment played a passive role: only in 1935 does a positive net balance reappear. He does not give figures for public and private investment after 1936, but his verbal account accords well with other estimates (*e.g.*, Burton Klein, *American Economic Review*, March 1948). Although private investment in industry expanded considerably after 1936, public expenditure continued to play a dominant role. The recovery took place within a framework of general controls, of foreign exchange, of prices and wages and of credit which were not, however, used to replace the price mechanism. " While in Nazi economics the price mechanism was denied the function of *automatically* regulating the economy its usefulness as a tool of conscious and deliberate steering was by no means overlooked."

The wage stop was used, not to depress consumption standards absolutely, but to prevent too great a rise. In this way a considerable expansion of total investment was possible before inflationary pressures began to require the stricter direct controls of the war years. The sources of finance of investment underwent a considerable change, which Dr. Lurié thinks was more than the result of a large expansion of public expenditure. " Outside " savings became relatively less important, increasingly firms financed expansion out of internal accumulations, partly increased by the wage-stop policy. Undistributed profits of corporations rose from 0·365% of the national income in 1933 to 4·55% in 1939: hidden reserves also rose very rapidly. After 1934 the combination of dividend limitation with fiscal concessions further encouraged the increase in corporate expenditure on new plant.

Most of the influence on private investment in this period was exerted through the general controls of wages, prices, credit and so on, although they were operated with such flexibility as to produce on occasion specific results. In addition, mainly in connection with the " synthetic " industries, a number of specific controls, operating at the level of entrepreneurial decisions, were used. The skill with which in some cases these controls reduced or even eliminated commercial risks, without destroying all incentives to efficiency, is remarkable. On the other hand, it is significant that the Nazis disliked direct subsidies and never resorted to setting up purely State enterprises; Dr. Lurié makes it clear that the specific controls could be and were sometimes used to bolster up monopoly positions.

Although the author's extreme detachment makes for rather heavy reading, he has successfully assembled and presented clearly an immense mass of useful and interesting material. It is a pity that in his final paragraphs Dr. Lurié has allowed himself to repeat the doctrine of growing internal economic strains in the Konjunktur which forced the Nazis into war. If Hitler had got what he wanted without war, the armaments would doubtless have seemed superfluous after all. But in economics bygones are bygones, and there is nothing in Dr. Lurié's study which suggests that the Nazis would not have been able to digest their spoils.

G. D. N. WORSWICK

Magdalen College,
Oxford.

German Realities. By GUSTAV STOLPER. (New York: Reynal and Hitchcock, 1948; and London: Allen and Unwin, 1949. Pp. x + 341. $3.75.)

THIS is far and away the best study of the German problem that has appeared since the war—balanced, imaginative, circumstantial, with all the force and economy of argument that the subject requires. A year after the author's death there is astonishingly little that has not fallen out as he anticipated, and there has been no great loss of vitality in the long list of myths and illusions that he so sedulously exposes. He has proved right over Czechoslovakia; right over communications with Berlin, long before they found their way into the world's headlines; right about the energies that might soon be released in Germany and the limits to the recovery that such a release can permit; and right about the course of events in the Eastern Zone, and the progressive consolidation of the former Austrian Empire under

Russian auspices. One who is so consistently right has established his claim to be read : and this apart from the influence that he obviously exerted on American policy during at least the final year of his life.

On the myths and misconceptions, Dr. Stolper plays a lively and compelling logic. " No nonsense is so great," he remarks, " that it cannot be built up into a potent political force by the sheer psychological magic of endless repetition "; and on no subject has there been such damnable iteration and reiteration of nonsense as the Ruhr and war potential. At the mere mention of the words, the passionate hates and fears of half Europe blaze up at once in a line of fire across the path of German recovery. Yet what is the truth about the Ruhr ? That it was " the peace industries, not the war industries, that gave it its industrial significance." That its contribution to the war machine " consisted primarily of heavy artillery and armour plate," did not exceed 25% of the total output of war material, and did not include a single aircraft plant or more than one-tenth of the tanks and armoured cars. That no other industrial centre is more dependent on imported raw materials (and foodstuffs) and more vulnerable to blockade. And what is the real truth about war potential ? Surely that " with the exception of a relatively small sector, no distinction between war and peace industry is possible "; and that organisation and will to fight convey a far more decisive military advantage than so-called " war potential."

In a reasonable world it might have been possible to make peace on terms that left a united and self-supporting Germany; and even the much derided Potsdam Agreement paid lip-service to such terms. But in a reasonable world there would be no wars, and consequently no occasion for peacemaking. The problem for statesmen at the close of the war, therefore, was what concession to make to the folly as well as to the interests of their allies. It did not help matters that Mr. Morgenthau and others set a standard in folly that made it difficult for Anglo-American statesmen to claim any prerogative of wisdom. As Dr. Stolper reminds us, it was at Quebec in September, 1944, not at Yalta or Potsdam, and it was in the absence of Soviet Russia, that Britain and America agreed on the removal of machinery as reparations from the metallurgical, chemical and electrical industries of the Ruhr although this meant that these industries would necessarily be " put out of action, closed down."

But if the expert, not the dilettante, had guided policy would the result have been so very different ? Certainly the experts of

America and Britain were familiar at the time of Potsdam with the gist of Dr. Stolper's arguments, and many of them shared his point of view. But was the question exclusively one for the expert? The fact is that there was a real dilemma, given that it was worth some effort to secure the agreement of Russia.

It was obvious long before the war was over that the real peacemaking must be between the United States and Russia rather than between the Allies and Germany. Without an accord, or at least an understanding, between the two major powers, Germany was doomed to become a no-man's land, partitioned, garrisoned, the promised victim of another war. Given an understanding, even at the cost of harsh terms for Germany, there was at least the prospect of slow but uninterrupted reconstruction, of a relaxation or revision of the most offensive clauses agreed upon by the victors, and of a united nation at peace with her neighbours and secure within her frontiers. Whichever way one turned, Germany's future was dark and grim. But there could be little doubt which way, until it was proved a blind alley, had to be taken. No Allied statesman could have persuaded his people immediately the war was over that his first duty was the reconstruction of Germany, that there was no hope of any understanding with Russia, and that partition had come to stay.

How much that really mattered was sacrificed while the attempt at understanding was made? The loss of industrial output in the Western Zones due to reparations has been insignificant; the removal of machinery and plant likely to be needed within the next few years could be made good for a few millions of pounds. The real damage was in morale; and the confusion of policy to which that damage was largely attributable extended well beyond reparations and quadripartite disagreements.

This is not, however, Dr. Stolper's view. For him the recovery of Germany has been delayed for three years by a foolish policy in which restrictions on the level of industry have been one of the worst features. As for Soviet Russia, " if the Soviet Union ever had the intention of establishing a unified Germany . . . it has betrayed no sign of it." A Russian administration in any part of the world could not fail to destroy the existing economic system, and make reabsorption into any other administration impossible. It should have been obvious from the first that quadripartite Government would break down and that Russia would " stand in the path of a reasonable or even tolerable organisation of the world."

This strong anti-Russian bias accounts for one curious mis-

statement. Not once but several times, Dr. Stolper says that the German armies were " in full flight and dissolution " at the time of Yalta (February 11, 1945) and that American troops could have been in Dresden and Berlin " within hours " but for orders from on high. The truth is that the Allied armies were hundreds of miles away and were just recovering from the Ardennes offensive. The partition of Germany was not an act of appeasement towards Russia in a spirit of self-delusion; it was the almost inevitable outcome of the military situation, with slices of territory held by invading armies whose leaders were not in full accord with one another.

There are a number of other minor blemishes. One may be pardoned for raising an eyebrow at the suggestion, on the authority of Keitel, that the French and British armies would have met with little resistance had they invaded Germany in September 1939. It is possible to agree on the value of competition and yet feel some bewilderment over the precise method by which Dr. Stolper would have attempted to revive it in, say, coal-mining. Not everyone would take so optimistic a view of the responsibilities that can be thrust on private enterprise in a country in Germany's condition. The use made of population statistics, however refreshing to find them used at all, is also a little extravagant. Is it reasonable to belabour the allies for their exaggerated fears of Germany in 1945 on the grounds that it is " a pretty safe forecast " that the population of Germany in 1980 will be less than that of France? Even in 1949 one may be pardoned for some scepticism both as to the proposition itself and as to the corollary. There are other and far better reasons why it was nonsense to fear a revival of German strength and aggression as an early or, indeed, the principal danger to the peace of Europe. Similarly " the terrific rate of infant mortality " on which a good deal of stress is laid turns out to be very little above the pre-war level and well below the level in Poland and other parts of Eastern Europe. Again, it may be true that in 1945 two-thirds of the work in the Ruhr pits was done by workers over forty years of age, and that the normal proportion is about a quarter. But this is no reason why one need fear a permanent contraction in the output of coal from the Ruhr or suggest that " within ten years Germany will no longer be able to keep the coal-mines at a production level anywhere near the pre-war normal."

These are trifles. When Dr. Stolper, for all the severity of his judgments on Russian, French and American policy, abstains so scrupulously from criticism of the part played by Britain (and it

has been by no means free from folly), it would be ungenerous and unbecoming to express no word of admiration for a work on the highest levels of polemic, expressed in language contained yet passionate. What it cost its author may be guessed from his death within a few days of its completion.

A. K. Cairncross

London.

Berlin Reparations Assignment. By B. U. Ratchford and W. D. Ross. (Chapel Hill: North Carolina University Press (London: Geoffrey Cumberlege), 1947. Pp. xii + 259. 20*s*.)

To anyone who has taken a part, however humble, in a long series of international negotations nothing can be so interesting as to see those negotiations through the eyes of others who were similarly engaged, but in another delegation. The curious mixture of close personal intimacy and professional opposition leaves one uncertain how far one has penetrated the thought of one's colleagues. Thus, to me at least, this book by two of the American representatives on the Level of Industry Committee in Berlin in the autumn of 1945 is quite fascinating.

It will, I think, fascinate others also. For it gives the first account from internal sources of the history of reparations, as seen through American eyes. It begins with the initial formulation of ideas not only by F.E.A. but also in the form of the Morgenthau Plan. It goes on to the Yalta Conference, the Moscow Reparations Commission and the attempt at Potsdam to cut through the *impasse* into which the Commission had drifted because the Russian scheme, promised at Yalta, was never, in fact, presented. But the book comes to life when it reaches the negotiations in Berlin in the months immediately following Potsdam, where the authors can write from personal experience and with that delightful freedom that is permitted to Americans once they are free of official trammels.

The Level of Industry Committee was not an independent body, created to work out a reparations policy. It was given a perfectly definite task: to assess within six months the levels of industrial capital equipment that must be left in Germany to provide her with the means to maintain herself without external assistance and to afford " average living standards not exceeding the average of the standards of living of European countries " (defined to mean all Europe other than the U.K. and U.S.S.R.). It had, or should have had, a purely technical task, reasonably

possible of answer. The broad policies had supposedly been laid down at Potsdam.

In practice, it was not quite so simple. Germany was still in a state of chaos. Information about the surviving resources was meagre everywhere and virtually non-existant from the Eastern Zone. The staffs of the various economic bodies were exiguous and overworked. Dr. Ratchford himself was doubling the duties of economic adviser to the U.S. Military Government and U.S. representative on the Technical Staff of Level of Industry Committee which did most of the preparatory work and was a very full-time job.

The task was a huge one : to survey the whole field of German industry; to establish reasonable estimates of consumption levels of Europe as defined at Potsdam (no easy statistical task); to reach agreement about the levels of industries providing for final consumption; to estimate the import needs of Germany consistently with the defined standards; to agree export levels in appropriate industries to give a balance of payments; taking these levels of industries providing for final consumption, to relate the levels of the basic industries to them. Under the very best of conditions to carry through such a task would have been difficult. To attempt it in the conditions of Berlin in 1945 was a nightmare. Statistical material was terribly hard to come by. We had a single copy of the German census of production of 1936. War-time developments were only inaccurately known. The Russian delegation was, over the early part of the period, wholly incapable of making any useful contribution, and for lack of instructions would frequently fail to turn up at the meetings. The French delegation were admirable critics, but unequipped in most cases to do the heavy work of preparation. This fell almost entirely on the U.S. and U.K. delegations, and Dr. Ratchford himself made a great personal contribution.

His book throws light on all the various stages of the negotiations, and one finds set out not only the final agreements but the initial proposals also by the various delegations—each, of course, working within its own understanding of the Potsdam policy. The various issues that emerged become clear. But outstanding among these was the steel decision. It is gratifying, in view of much that was published in the Press at the time, to find it quite clearly recorded here that at each stage of the negotiations the British representatives were asking for substantially higher and more realistic levels of steel output than any other delegation. The authors do not disguise their own

disagreement with the figures finally advocated on behalf of the U.S.A.

The story goes on to deal in detail with the submission of the four national proposals and their ultimate amalgamation into a quadripartite plan. Anyone who is interested in the actual figures and the treatments proposed for specific industries will find them set out in full. But I doubt whether it is this detail which will most attract the readers of this book. What I believe they will learn far better from it is the sort of way that negotiations of this kind had to be carried on, the formidable statistical tasks that were thrown on to inadequate staffs, and—(dare I say it?) how much better a job the economists would have made of it, had it been treated as an economic issue than the politicians made of it when it became a political issue.

AUSTIN ROBINSON

Sidney Sussex College,
Cambridge.

Hunger and History. The influence of hunger on human history. By E. PARMALEE PRENTICE. (New York: Harper Bros., 1939. Cheap edition 1948. Pp. 184. 8vo. $1.00.)

OF all the imperatives of human living, hunger is primary. Without food man cannot live, though he may without clothing, shelter or heat, if the circumstances are favourable. Nothing can overcome the need for food, daily, almost hourly. Mr. Parmalee Prentice has taken for his theme the centuries-long struggle of mankind to produce and store enough food for his use.

Only in the last two centuries has this campaign been brought to a partly victorious end, and it was precisely in these two centuries that British effort led the way to a plenitude of food. Even when most successful, however, food production has always been quite inadequate to provide all the needs of all the peoples of the world. Many large populations, like those great aggregations of people in the Far East, have been largely under-nourished, and in the richer and more developed countries of western Europe abundance of food was limited to the well-to-do and the fully employed. Numbers of the peoples of these nations were still underfed: so in spite of all the efforts mankind has made throughout its history the time has yet to come when everyone everywhere will be well fed.

Vast progress has nevertheless been made, and some foods of importance like milk, that in former ages were only consumable near the place of production, are now distributed evenly amongst

whole populations, in Great Britain at any rate. This has only become possible because of developments in processing, storage and transport. In former ages it was difficult, if not impossible, to keep liquid milk because there was no method of cooling directly after milking, and only people who kept cows or lived within daily reach of a cow-keeper could then enjoy the use of this nutrient. Cheese was the remedy, and many people regarded this product with doubt as a jingle translated from the French shows only too clearly

> No wise man would please
> To eat any cheese

a point of view that has disappeared because processes have been improved and knowledge of nutrition has expanded. In this, as in other lines of food production, Britain played its part, but it was not till the second half of the nineteenth century and the completion of a fair network of railways that a sizable traffic in liquid milk could be built up.

Long before then the " improvers " of the eighteenth century had been pushing forward with the " improved " farming systems that had been worked out and were rapidly increasing the output of the main staples, beef and bread. Britain was not, of course, living in isolation even then. Long before the Spanish Armada had set out to conquer us, and centuries before that, the country had been governed by Norman William, the Bastard and Conqueror, with the result that the kingdom was involved in Continental wars for five centuries. Much was learned during these rather leisurely campaigns, particularly from the Low Countries, whose advanced farming had derived from Northern Italy.

Sir Richard Weston brought the new ideas to England somewhere about 1650 and by 1750 some progress had been made in adopting them. " Turnip " Townshend had publicised that root, and many writers had followed Weston in praising both it and clover. The Norfolk four-course rotation was in process of being worked out, and it produced more forage on which more meat could be fed as well as more manure produced to feed the cereal crops. Jethro Tull in the early eighteenth century worked out a type of seed drill and the modern age of mechanical farming was by so much brought to birth, although animal traction was not superseded by the steam engine, and only after World War I by the farm tractor.

Round about the middle of the same century the great British cattle-breeders got to work, Prinsep, Fowler, Bakewell, the Collings brothers, and many others with cattle, and Ellman and

his followers with sheep. All this progress was stimulated by the needs of the French wars, which lasted from 1792 till 1815, and was widely imitated on the Continent, and so far as conditions then allowed in America where the great developments of the nineteenth century placed vast quantities of food at the disposal of mankind. Somewhat similar developments in Australia and New Zealand added still more to the store, and improvements in transport made these surpluses available all over the world.

This comparative prosperity, though it was always insufficient to provide the total needs of mankind, is not, in Mr. Prentice's opinion, without its dangers. The world has not yet passed beyond its age of need and to a world that has known little of abundance, a world that throughout history has lived in want and fear, he thinks the idea of permanent abundance may seem impossible to realise. The conception of happiness as something which should be within the reach of all is not one that will be willingly surrendered, although it can be attained only by conscious effort. Human progress can only be measured by the ease with which the necessities of life are provided, and it is visibly evident that the fundamental necessities, food, clothing, shelter and relaxation, can to-day be provided with far more ease than was ever possible before. Tinctured as it is with extreme of pessimism, a tale of the rise of a tortured humanity from the lowest levels of degraded poverty, this book ends upon a note of hope. With the powers that humanity has developed, if they can be sensibly and effectively used, then the race will be able to provide for itself good housekeeping, the first and most important of all our needs.

G. E. Fussell

London.

NOTES AND MEMORANDUM

A Note On Deferred Export Credits

I SHOULD like to examine further the argument put forward by Mr. Harvie in the ECONOMIC JOURNAL of September 1948, in favour of deferred export credits. He desires that they should be used to offset purely temporary changes in the terms of trade associated with the fact that the supply of the products of undeveloped countries tends to be inelastic. It is a subject of importance because such deferred credits have been accumulated as sterling balances by some colonies as a result, for example, of the sale of cotton and cocoa produced by the native inhabitants.

Mr. Harvie's arguments are that in a world boom the terms of trade of many undeveloped countries will improve, and he implicitly assumes that there will in consequence be some favourable balance of trade and hence net investment overseas. He argues that as the marginal propensity to consume is high the multiplier will be large, and income must be inflated greatly to obtain the saving necessary to finance the investment. The second part of his argument explains that there is a favourable balance of trade despite the high marginal propensity to consume because the marginal propensity to import is low.

The argument means that in a world boom the money income of producers of goods for export will increase, but because the marginal propensity to purchase imports is low they will spend most of the increase on local production. In consequence the money value of local production for internal consumption will rise even more than the money value of export production, so producing an internal inflation greater than the inflation of the world boom.

Mr. Harvie seems to explain the sequence of events as the natural consequence of improved terms of trade, and he does not consider the effects of controls. My impression, as a result of experience in East and West Africa, is that the African likes to spend a large part of any increase in his income on imports such as cotton goods, ironware and bicycles. In a free economy this would cause a rise in the demand for imported goods which, because the supply is elastic, would lead to increased imports, the end of the favourable balance of trade and the cessation of over-

seas investment. Thus there would be no multiplier effect maintaining an internal inflation.

This natural check on inflation is, however, often limited by controls. Imports arriving by sea can be effectively controlled as can the prices at which importers sell. In an undeveloped country where demand is in excess of supply at the controlled price it is often impossible to make controls effective over subsequent sales, and the prices that the ordinary Africans pay are above controlled prices. Thus the internal inflation tends to be most marked in imported goods, and not least marked as Mr. Harvie's thesis requires.

I think Mr. Harvie's problem can be illustrated by the following example, summarised in the table below, which makes the artificial assumption that future average import and export prices are known and also prices in world boom and slump. Further, it assumes that quantities of production, exports and imports per "year" do not change and that half the production of the undeveloped country is for local consumption and half for export.

	Units of money value (quantities unchanged).		
	Average.	In boom.	In slump.
Local production	50	?	?
Exports	50	70	30
Total production	100	?	?
Imports	50	60	40
Favourable balance	0	10	−10

In a world boom there is a favourable balance of 10 units because of the improved terms of trade. The balance, however, is only temporary, it will be followed by an equivalent unfavourable balance, and hence there is justification in taxing the exports in boom by 10 units and investing the proceeds overseas, hence obtaining the required "forced" saving without internal inflation. This tax is Mr. Harvie's "deferred export credit" to be returned to the export producer in the slump which will follow. I agree entirely with Mr. Harvie that in the situation postulated such a policy would have advantages. It would have some advantages no matter what the marginal propensity to import might happen to be.

The ideal solution seems to require something more than the deferred export credit. In a boom the export producers have had their money incomes, even after the "tax" referred to above, increased by 20%. According to the marginal propensity to

consume local produce, the " local " producers will also have had changes in their incomes. Unless the effect is to give them also an increase of 20% in their money incomes there will be an economic urge to producers to change their production. Such a change in production is not desired, because the internal re-distribution of income is known to be only temporary.

The ideal solution therefore requires an export tax in boom, not of 10 units, but of 20 units. 10 of the units ought to be saved and invested overseas as deferred export credits, and the other 10 ought to be used to subsidise imports which have risen temporarily in price because of the world boom. If this is done the demand for imports and the distribution of the imports between the two types of producer will be unchanged, as will money and real incomes.

In the world slump which follows, the position will be reversed. Now imports, instead of being subsidised, will be taxed 10 units, whilst the 10 units previously invested overseas will be withdrawn and exports will be subsidised by the full 20 units, again leaving income and its distribution unchanged.

It must be stressed that this is a purely theoretical situation. It is impossible in any given circumstances to determine whether a change in the terms of trade, or in the world price level, will be temporary or permanent. One can only use judgment. Further, no consideration is given to the possibility of storing supplies and only disposing of them when the terms of trade are advantageous.

An example of how inflation can take place in a country where the terms of trade had turned in the country's favour is the Gold Coast in 1947. The official policy was openly proclaimed by senior officials, who, being members of the Legislative Council, make the announcements of Government policy which in Britain would be made by Ministers.

The economy of the Gold Coast up to and including 1946 was sound. The imposition of an income tax in 1944, producing much revenue from companies and hence tending to reduce Britain's income from overseas investments, had created budget surpluses. There were also surpluses on railway and harbour working and reserves accumulated as a result of the marketing of cocoa. All these surpluses were invested overseas and so were associated with a favourable balance of trade.

The situation was changing, apparently to the advantage of the Gold Coast, for the world price of cocoa increased greatly and the terms of trade moved in the country's favour. It was decided to distribute some of the benefits of the increased price to the

African producers of cocoa. The price paid to the farmer for a 60-lb. head-load was raised for the 1946–47 crop from 15*s.* to 27*s.* 6*d.*, and again for the 1947–48 crop to 40*s.* The Acting Colonial Secretary in a broadcast, subsequently published, said on September 30, 1947, " In 1945–46 £6¼ million were paid to the farmers for their cocoa. In the 1947–48 season £15 million will be paid." When considered in relation to total imports of £10 million in 1945 and £12 million in 1946 it was an enormous increase, but it was an increase fully earned by the value of the exports of cocoa, and it still allowed large sums to be added to reserves and lent to the United Kingdom. It was, however, in effect, a decision to increase imports to about £9 million a year above the 1945–46 level.

A further factor was that the budget surpluses were getting smaller and disappeared altogether in the financial year 1947–48. This was largely because of increased incomes paid, first to European officials, and then to all Africans employed by the Government. It was decided to finance the deficit by using some of the balances accumulated overseas. It did not seem, however, to be realised that any decline in the amount of budget surpluses and any utilisation of accumulated reserves, all invested overseas, must make the balance of trade less " favourable " for the Gold Coast, and that the appropriate way to do this was to increase imports.

Other factors included a desire on the part of companies whose development had been restricted during the war to rehabilitate themselves and develop. An effect of this was described by *African World* in October 1948, when it stated : "The face of Accra is changing rapidly and beautifully. . . . Almost all the firms are making alterations to their factories " (p. 29). This involved at least a reduction of remittances of earnings to Europe, and possibly direct investments in the Gold Coast from outside.

Another factor was the increasing number of European staffs and their families whose expenditure is very largely upon imported goods and who, having accounts with the main stores, tend to get privileged treatment, and are able to buy at controlled prices.

In the midst of these substantial changes in the economy of the Gold Coast, Britain had the sterling convertibility crisis of August 1947. As a result, presumably, of requests from Britain the Gold Coast decided to tighten, rather than relax, restrictions on imports. At the opening of the meeting of the Legislative Council on September 16, 1947, His Excellency, the Officer Administering the Gold Coast, announced the need for a " rever-

sion to an austerity plan for the import programme " in order " to save as much as possible in the consumption of imported goods." The Acting Colonial Secretary, in a broadcast on September 30, announced the further sacrifices to " help Britain and the Empire." He said, " Even now there are not nearly enough goods in the country, and because of this economic crisis we are going to have to reduce them still further." These speeches were published in full in the official *Gold Coast Bulletin* in September and October 1947.

The decisions to pay more of the proceeds of exports to the cocoa growers and to refuse to allow those increased proceeds into the Gold Coast were mutually inconsistent. The policy of reducing imports was not pursued, and imports were allowed to rise, but they were still restricted and did not rise sufficiently. The result was that the Africans in the Gold Coast experienced a rather crude inflation. The Government by import restriction was maintaining a more favourable balance of trade than the members of the community with cash resources would willingly agree to. The cocoa farmers and Government employees did not wish to save their increased incomes and invest them in sterling balances. The Government could not reduce the payments to cocoa growers whilst world prices remained so high, they did not wish to hinder any kind of " development " and they postponed raising rates of taxes and investing the additional receipts in sterling balances.

The inflation produced forced savings which were invested in Britain. Increased currency went into circulation, there being an increase of £3·7 million, or over 25%, in the last nine months of 1947. Increased currency in the United Kingdom is associated with increased borrowing by the British Government, and the value of the increase can be used for the benefit of the people of the United Kingdom. In the Gold Coast the currency is not backed by Gold Coast Government debt, but by sterling balances, and so currency inflation there is a forced loan, benefiting not the Gold Coast, but the United Kingdom. If prices rise there more than elsewhere it is forced on the Gold Coast by an undue restriction of imports.

When the Gold Coast Government sold investments to meet the budget deficit it obtained sterling in exchange. When Gold Coast exporters sold exports which were not paid for by imports they received sterling or foreign currency. If they received foreign currency they exchanged it, as they were required to do, for sterling through the exchange control. Both exporters and

Government had sterling, but they required West African currency to meet their increased local commitments, exporters to the cocoa growers and the Government to its employees. There were two ways of obtaining the West African currency. They could use the sterling to buy imports which could be sold in exchange for West African currency. Alternatively, they could obtain the required currency from the West African Currency Board in exchange for sterling. To avoid inflation the exporters and Government ought to have met more of their commitments, not by currency created for the purpose by the Currency Board, but by currency obtained locally as a result of selling increased commodity imports.

Considering (in the abstract) the influence of African production of cocoa in the Gold Coast we have all the features described by Mr. Harvie as deriving from improved terms of trade in an undeveloped country. There is the favourable balance of trade, overseas investment, a large multiplier and therefore severe internal inflation, together with a small increase in imports in relation to the total increase in internal demand. The trouble, however, was not brought about naturally by a low marginal propensity to import, but because the overseas investment was forced upon the community by import restrictions. It was associated with increased currency reserves, rather than by a free investment of accumulated reserves.

It is well that there is not really a low marginal propensity to import in undeveloped countries or one would be inclined to argue persuasively that native inhabitants should never be allowed to benefit directly from any *permanent* improvement in the terms of trade, or even from any normal but permanent increase in exports, because if they are allowed to do so their high marginal propensity to consume and their low marginal propensity to import will make internal inflation inevitable. (One would argue for increased social services and other indirect benefits.) There is, however, no reason to assume that improving real standards of living for people of undeveloped countries, if associated with an increased value of exports, must also be associated with capital exports.

H. S. Booker

London School of Economics and Political Science.

NOTES ON ADAM SMITH'S LIBRARY AND THE BONAR CATALOGUE 1932

SOME slight revisions appear necessary to the paper written by Mr. Claude Jones and published in the ECONOMIC HISTORY SUPPLEMENT to the ECONOMIC JOURNAL, February 1940. It is with a view to making such revisions, and setting forth additional information on some of the Adam Smith books, that the present brief report is being written. I wish to express my thanks to Dr. G. Heberton Evans, Jr., of the Johns-Hopkins University, for the kind assistance given me in the examination of books from the library of Adam Smith, now held by the University in the Hutzler Collection.

It is hoped that the explanations given in respect to the *Condorcet Tracts* will afford some scholar an opportunity to clear up the mystery of Appendix V in Dr. Bonar's second edition of his catalogue. To facilitate reference, the lists of books, and the notes thereon, are divided in five sections, as follows :

Section 1. Johns-Hopkins (Hutzler) Collection : Listed in Bonar.

Section 2. Johns-Hopkins (Hutzler) Collection : Not Listed.

Section 3. Johns-Hopkins (Hutzler) Collection : Not Listed (Bonar or Jones).

Section 4. Private Collection : MacGarvey : Listed in Bonar.

Section 5. Private Collection : Hollander : Listed in Bonar.

SECTION 1

(Samuel Butler)	Hudibras, in three parts; written in the time of the late wars; corrected and amended. 2 vols., 3rd edition. London 1772	C.
Samuel Butler	The genuine remains in verse and prose of Mr. Samuel Butler, author of Hudibras. 2 vols. London 1759	C.

(*Note :* Shown as unlisted, by Jones.)

John Arbuthnot	Tables of antient coins, weights and measures. 2nd edition London 1754	C.
Blewitt, George	An enquiry whether a general practice of virtue tends to the wealth or poverty, benefit or disadvantage of a people. London 1725	Johns-Hopkins University, Baltimore, Maryland.

Bound together with :

Law, William	Remarks upon a late book, entituled, The fable of the bees; or Private vices publick benefits. 2nd edition. London 1725	Johns-Hopkins University, Baltimore, Maryland.
Chalmers, George	Political annals of the present united colonies, from their settlement to the peace of 1763; compiled chiefly from records; and authorized often by the insertion of state-papers. London 1780	C. and J.

(*Note :* Dr. Bonar lists this book as part of the Japanese collection, though the volume was acquired by Mr. Hutzler of Baltimore, prior to 1932.)

Académie Royale des inscriptions et belles lettres	Choix des mémoires de l'Académie royale des inscriptions et belles lettres . . . 3 vols. London 1777	C.
Destouches, Phillippe Nericault	Oeuvres dramatiques . . . 4 vols. Paris 1757	C.
de Luc, Jean André	Recherches sur les modifications de l'atmosphère. 2 vols. Geneve 1772	C.
Shaftsbury (Anthony Ashley Cooper)	Characteristics of men, manners, opinions, times. Vols. 2 and 3. London 1737–8	G.T.
Robertson, Wm.	The History of Scotland during the reigns of Queen Mary, and of King James VI. 2 vols. London 1759	B.
Sibbald, Sir Robert	The History, ancient and modern of the sherrifdoms of Fife and Kinross. Edinburgh 1710	C.
Smith, John	Gaelic antiquities, consisting of a history of the druids. Edinburgh 1780	C.
Lysias	Orationes graece et latine ex interpretatione et cum notis Ionnais Taylori. Cantabrigiae 1775	G.T.
Macpherson, James	Fingal, an ancient epic poem in six books : together with several other poems, composed by Ossian, the son of Fingal. London 1762	C.
Macpherson, James	Original papers, containing the secret history of Great Britain, from the restoration to the accession of the house of Hanover. 2 vols. London 1775	Q.C.
Forbonnais, François Véron Duverger de	Considérations sur les finances d'Espagne n.p. n.d.	G.T.

Bound together with :

Forbonnais	Réflexions sur la nécessité de comprendre l'étude du commerce et des finances dans celle de la politique. n.p. n.d.	G.T.

(*Note :* These two volumes are listed by Dr. Bonar on page 177, under " Spain.")

Trade	New and old principles of trade compared: or a treatise on the principles of commerce between nations, with an appendix. London 1788	E.U.

Bound together with:

Turgot, Anne Robert Jacques	Reflections on the formation and distribution of wealth. (Trans. from the French.) London 1793	E.U.

(*Note:* It would appear that all of Mr. George Turner's collection, with the exception of L'Ordre Naturel of Mercier de la Rivière, were acquired by Mr. Hutzler of Baltimore for the Johns-Hopkins University.)

SECTION 2

Burnet, Gilbert	Some letters, containing an account of what seem'd most remarkable in travelling thro' Switzerland, Italy, some parts of Germany, etc, in the years 1685 and 1686. London 1724
Bussy, Roger de Rabutin, Comte de	Histoire amoureuse des Gaules. Vols. 1 and 2. Paris (Grange) 1754
Brosses, Charles de	Traité de la formation mécanique des langues et des principes physiques de l'étymologie. 2 vols. Paris 1765
Cliquot de Blervache, Simon	Le réformateur, ou Nouveau projet régir les finances, augmenter le commerce, la culture des terres etc. Nouvelle edition. Paris 1757
Duclos, Charles Pinot	Considérations sur les moeurs de ce siècle. Berlin 1751
Anonymous	The present state of the republick of letters. Vol. 12 only. n.p. 1733
Condorcet, Marie Jean Nicolas Caritat, Marquis de	Essai sur l'application de l'analyse à la probabilité de décisions rendues à la pluralité des voix. Paris 1785

(*Note:* The following five items are bound together in one volume bearing the title "Condorcet Tracts" on the spine.)

Condorcet, Marie Jean Nicolas Caritat, Marquis de	1. Examen de cette question: Est-il utile de diviser une assemblée nationale en plusieurs chambres? n.p. n.d.

(*Special Note:* On the fly-leaf is written: "Mr. Maconochie, Advocate, 1790" "from Dr. Adam Smith." This does not appear to be in Adam Smith's writing. However, on the verso of the flyleaf, apparently in Dr. Adam Smith's writing, is a complete list of the contents of the volume. The front cover of the book, on the inside, has a small gummed label reading: "Supplied by the Museum Book Store, 45 Museum St., London W.C.")

Same	2. Sur la nécessité de faire ratifier la constitution par les citoyens, et sur la formation des communautés de campagne. Paris n.d.

Same	3. Lettre . . . à M. le comte Mathieu de Montmorency. Paris 1789
Same	4. Seconde Lettre à . . . M. le comte Mathieu de Montmorency. Paris 1789
La Harpe, Jean Francois de	5. Èloge de Voltaire. Geneve, Paris 1780

(*Note:* On top of the title page: "Pour M. Adam Smith de la Société Royale dela part del'auteur.")

Great Britain, Treaties, etc.	Leges marchiarum, or Border Laws. . . . With a preface, and an appendix of charters and records. By William, lord bishop of Carlile. London 1747
Harris, James	Philological inquiries, in three parts, by James Harris. London 1781
(Holbach, Paul Henri Thiry, baron d')	L'antiquité devoilée par ses usages. Vols. 2 and 3. Amsterdam 1766
Olivet, Pierre Joseph	Histoire de l'Académie Françoise depuis 1652, jusqu'a 1700. Amsterdam 1730
Ramsay, Allan	The ever-green, being a collection of Scots poems, wrote by the ingenious before 1600. Vol. 2. Edinburgh 1761
(Stanislaus, I. Leszcynski, King of Poland, 1677–1766)	La voix libre du citroyen, ou Observations sur le gouvernement de Pologne. 2 vols. (Amsterdam) 1749
Anon.	Écrits pour et contre les immunités prétendues par la clergé de France. 3 vols. La Haye 1751
Tibullus, Albius	. . . Carmina . . . Novis curis castigavit. Chr. S. Heyne. Lipsiae 1777
Sudre and Others (bound in one)	*L'Affaire de Calas* . . . A collection of items by (Sudre); Lavaysse, David; Lavaysse, Gaubert; (Loyseau de Mauleon); (Duroux); (Elie de Beaumont); Mariette.
Viz:	Mémoire pour le Sieur Jean Calas. Toulouse n.d.
	Mémoire Justificatif pour . . . Louis Calas. Toulouse n.d.
	Réflexions pour les Calas. Toulouse n.d.
	Suite par les Calas. Toulouse 1762
	Observations pour . . . Jean Calas . . . Etc. n.p. 1762
Trublet, Nicolas, Chas. J.	Mémoires pour servir à l'histoire de la vie et les ouvrages de M. de Fontenelle. Amsterdam 1761
(Voltaire, Francois Marie Arouet de)	La philosophie de l'histoire. Amsterdam 1765
Zenophon	. . . Memorabilium Socratis dictorum . . . cum notis integris Ernesti. Oxonii 1741

Section 3

(Crawford, David)	Memoirs of the affairs of Scotland containing a full and impartial account of the revolution in that kingdom begun in 1567 . . . by Her Majesty's historiographer for the kingdom of Scotland. London 1706	
Condillac, Etienne Bonnot de	Traité des animaux . . . Par M. L'Abbé de Condillac. . . . On a joint à cet ouvrage un extrait raisonné du Traité des sensations. Amsterdam 1755	

Section 4

Prior Documents, 1764–1775 (Remembrancer)	A Collection of interesting, authentic Papers, relative to the Dispute between Great Britain and America; shewing the Causes and Progress of that MISUNDERSTANDING from 1764 to 1775: Printed for J. Almon. London 1777	B.

(*Note:* Contained in a brown cloth slip-case marked "Adam Smith's Copy".)

Stewarts; (George Crawford)	A genealogical history of the family of the Stewarts, from 1304 to the year 1710, collected from Public Records. To which is prefixed a general description of the Shire of Renfrew. Edinburgh 1710	B.

(*Note:* There are two small notes in what appears to be Adam Smith's writing, in the index of this volume.)

Section 5

Akenside, Mark	The poems of Mark Akenside M.D. 21·5 cm. 492 pages, Calf. London 1772	C.

(*Note:* The information in respect to this was taken from page 146 of the catalogue of "The Economic Library of Jacob H. Hollander, Ph.D.", and was verified by reference to one of the Trustees charged with the sale of this famous library.)

In conclusion, although it would seem to be without profit further to offer conjecture on the mystery surrounding the student's MS. notes (as related by Professor W. R. Scott in Appendix V of Dr. Bonar's catalogue), there appears to be no doubt that the "Mr. Maconochie, Advocate, 1790," the recipient of the "Condorcet Tracts," was the Lord Meadowbank whose son's signature appears on the front cover of the MS. lectures on Justice, Police, etc. It could not have been Alexander Maconochie, who died in 1786, although Adam Smith had encountered this gentleman in 1765, when acting as "Commissioner for taking Evidence at Toulouse in the Douglas Cause" (vide W. R. Scott,

Adam Smith as Student and Professor, page 259). There is thus indicated a possible link between Allan Maconochie, Lord Meadowbank, and Alexander Murray, Lord Henderland (who died the same year that Meadowbank ascended the Bench); and offers a valid basis for the appearance of the MS. among the Maconochie family affects. That the Condorcet Tracts were presented to Lord Meadowbank the year of Adam Smith's death, would argue a close bond between the great economist and "Mr. Maconochie, Advocate" or else infer that the latter had served Dr. Smith in some manner as to deserve the presentation copy of the collection of significant tracts.

The only other writing of the famous Marquis de Condorcet which appears to have been in the Adam Smith Library, his "Essai sur l'application de l'analyse . . .," a presentation copy inscribed by the author to Dr. Adam Smith, has also failed to be included in the Bonar Catalogue, and has turned up over here in Baltimore, in the Hutzler Collection.

CHARLES J. MACGARVEY

Maryland.

CURRENT TOPICS

We heartily congratulate our Treasurer, Mr. H. C. B. Mynors, on his recent appointment as a Director of the Bank of England.

We congratulate Mr. F. W. Paish on his appointment to the University of London Chair of Economics with special reference to Business Finance, tenable at the London School of Economics.

The following have been appointed to University Lectureships in the Faculty of Economics at Cambridge: Mr. N. Kaldor, Mr. A. R. Prest, Mr. F. Thistlethwaite. Mr. A. D. Roy has been appointed to a Faculty Assistant Lectureship in Statistics.

The Sir Richard Garton Memorial Prize, announced in the ECONOMIC JOURNAL of March 1948, has not been awarded, no essay having been submitted which in the opinion of the examiners reached the required standard. Minor awards from the fund are being made to two candidates whose work was judged to show merit and promise.

The prize of 100 guineas is again offered this year for competition for an essay in applied economics. The closing date is December 31, 1949. A subject may be chosen from the following :

(1) The factors determining productivity in a particular industry.

(2) A contribution to the study of the incomes or expenditure of the middle income groups.

(3) A quantitative study of habits and channels of saving.

(4) A realistic study of price formation in a particular field.

(5) Regional variations in wages : their causes and their influences on industrial location.

Other subjects may be considered in particular cases on application. Intending candidates should communicate with the Secretary of the National Institute of Economic and Social Research, 2 Dean Trench Street, London, S.W.1, who will inform them as to the conditions of the prize and the required standing of candidates.

The following have compounded for life membership of the Royal Economic Society :—

Barbey, E.	Malhotra, M. M.	Tocatly, A. M.
Chandra, M. C.	Samuelson, Prof. P. A.	Tzangrides, N.
Little, I. M. D.	Singh, G.	Zabal, E.

Library Compositions :—

Cambridge University Union Society.
Hendon Technical College.

The following have been admitted to membership of the Society :—

Agranat, L.	Beale, Rev. John.	Bryan, W. D.
Ahluwalia, K. S. B.	Bedi, J. K. L.	Buchi, J. H.
Antonio, D.	Benario, Dr. M.	Burgess, S. H. G.
Arredondo, Prof. R. M.	Bentley, W. F. F.	Cammack, E.
	Bloom, S. S.	Cassin, R. F.
Ashworth, R.	Borwanker, V. A.	Chanda, Prof. M. C.
Ayyar, S. A. R.	Briscoe, H. A.	Chung-Wee, A. C.
Baker, Prof. H. G.	Brookes, A.	Chung-Wee, C. R.
Baumol, W. J.	Brooks, D. E.	Coleman, D. G.
Baxter, W. T.	Brown, K. L.	Cook, A.

Cooke, R. C.
Coulborn, W. A. L.
Crampton, E. J.
Crossley, B.
Darbyshire, B. N.
Davies, J. H.
Dawson, A. V.
Desai, Y. T.
Despres, Prof. E.
Dimond, G.
Doran, G. F.
Duxbury, A. H.
Edminster, R. R.
Edwards, D. S.
Elsmore, S. G.
Evans, E. E.
Famodu, J. O.
Fazakerley, T. W.
Filtness, L. W. H.
Finlayson, V. A.
Foley, N. G.
Foster, Prof. D. L.
Foster, R. S.
Fowler, D.
Franklin, B.
Fraser, I. G.
Gallerstein, D. H.
Garud, S. G.
Ghosh, K. K.
Glyn-Jones, R. F.
Goforth, W. W.
Goodall, H. A.
Goode, R. B.
Greenstein, I.
Grey, R. Y.
Gribbin, W.
Grimes, C. K.
Gruberg, Dr. V. L.
Hall, H. F.
Hamot, H. B.
Hardman, L. K.
Harries, D. H.
Harrison, F.
Harrison, F. W.
Hawkins, L. P.
Hewitt, E. W. K.
Hill, R. H.
Hills, E. G.
Hirst, G. A. N.
Hogan, W. T.
Howard, N. W.
Howitt, S. R. L.
Hughes, J. J.
Jabbar, A. C. A.
Jackson, R.
Jacques, D. E.
Jassawalla, S. P.
Jennens, J. G.
Johnson, L. A. H.
Johnson, W. E.
Jones, D. R.
Kaul, M. N.
Keenan, J. A. C.
Kennett, Dr. L.
Killick, S. C.
Koenigsberger, W.
Krishnamurthy, P. S.
Lancaster, Miss T.
Landau, A.
Lanphier, H. S.
Laws, N. J. H.
Layer, Prof. R. I.
Lebern, S. A.
Lee, K. W.
Lees, A. W.
Leng, D. C. P.
Lipstein, B.
Little, I. M. D.
Loftus, P. J.
Longley, R.
Low, Mrs. J. B.
Lutz, J. P.
Lyle, L. D.
Lysons, F. A.
MacKinnon, I.
Maizels, A.
Majumdar, C.
Mathieson, A.
Meira-Serantes, Don R.
Meredith, R. G.
Middlewick, V. T.
Miles, H. N.
Moore, T. O.
Mort, D. A. P.
Motha, J. R. B.
Nadarajan, M.
Odumssu, J. O.
Opie, J. D.
Oppenheimer, Dr. A. S.
Osoba, P. J.
Ota, T.
Parmar, M. G.
Partridge, L. A.
Pearse, G. B.
Pegler, J. D. H.
Pickles, M. B. R.
Pinshow, L.
Podhorzer, J.
Poon, K. C.
Potts, W. B.
Prest, A. R.
Rabinowitz, N.
Radford, J.
Rajabathor, N.
Ramaswami, V. K.
Rao, D. S. N.
Ratchford, Dr. B. U.
Rates, R. D.
Riley, R. H.
Roberts, H.
Rosen, M. M.
Ross, Miss R.
Rudas, A. P.
Rymill, R. R.
Samuelson, Prof. P. A.
Sastry, V. R.

Satzew, Prof. Dr. M.
Savage, R. F.
Schwarz, K.
Segal, E. H.
Seshan, M.
Shaida, P. K.
Sharp, J.
Shaw, C. V.
Simmons, Prof. E. C.
Singh, A. T.
Smith, C. D.
Sofer, C.
Somaiya, C. D.
Southam, E. A.
Speight, H.
Stead, G. B.
Streeten, P. P.
Stribley, W. M.
Sum, T. K.
Sykes, D.
Talbot, E. W.
Teasdale, M.
Thakker, K. R.
Thomas, P. S.
Thompson, J. B.
Thweatt, W. O.
Trias-Fargas, R.
Tucker, J. T.
Turpin, A. C.
Uhr, Prof. C. G.
Vaines, S.
Van Ooteghem, A.
Vaughan, G. C.
Vos, F. I. H.
Wallace, P. W.
Weinstock, A.
Welton, A. G.
Whitman, G. E.
Whyatt, F.
Wise, T. F.
Withington, F. C.
Yogi, M. V.
Zolotas, Prof. X.

The following have been admitted to Library membership of the Society :—

Atlanta University.
Austin College.
Banco do Brazil.
Bard College.
Brandeis University.
British Electrical & Allied Manufacturers' Association.
British Institute of Management.
Chinese Social & Political Association, Peiping.
Circle for the Science of Science, Krakow.
Department of External Affairs, Ottawa.
Economic Cooperation Administration, Washington.
E. Lee Trinkle Library, Mary Washington College.
General Motors Overseas Operations, New York.
Joseph Lucas, Ltd., Birmingham.
Konjunkturinstitutet, Stockholm.
Michigan State College.
Moneys Patents Ltd.
National Human University.
National Nankai University.
Northern Idaho College.
North Texas State Teachers College.
Ohio University.
Rolvaag Memorial Library.
University of Detroit.

Dr. Kalecki has written concerning a point of interpretation in the review of Dr. Tsiang's *The Variations of Real Wages and Profit Margins in Relation to the Trade Cycle* by Mr. T. Wilson in the ECONOMIC JOURNAL for September 1948. Mr. Wilson attributed to Dr. Kalecki the view that the rise in profit margins during the depression was partly due to the overhang of " careless buying " during the boom. Dr. Kalecki has made no statement to this effect, and Mr. Wilson agrees that he was not justified in supposing that this was implicit in his general discussion. According to Dr. Kalecki the " Harrod Effect " operated with a time-lag during the recovery of the thirties, but he does not say that there was a similar time-lag at the onset of the depression. Mr. Wilson had deduced that since the change in consumers' habits is held to be slow at one turning point, there will also be a hang-over, according to Dr. Kalecki's theory, at the other turning point.

The Royal Economic Society would be glad to obtain returned copies of certain recent issues : those for September and December, 1947, and March, June and September, 1948. Any member who may care to return copies in good condition to the Assistant Secretary, 6 Humberstone Road, Cambridge, will be paid 3*s*. 6*d*. for each issue. No other issues than those shown above are required or will be purchased.

The Secretary has been approached recently by several bodies of students, chiefly on the continent of Europe, who would like to acquire copies of the ECONOMIC JOURNAL but cannot afford to pay the full subscription. Would any subscriber who would be prepared to send on a copy of the ECONOMIC JOURNAL after an interval, please inform the Secretary at the Marshall Library, Downing Street, Cambridge ?

RECENT PERIODICALS AND NEW BOOKS.

Journal of the Royal Statistical Society.

Vol. CXI, Part I, 1948. *On the Financial Position of the Society :* D. Heron. *Proceedings of a Special General Meeting of the Society held on 20th November, 1947. The Collection of Morbidity Data from Hospitals:* H. Cotton. *On the Distribution in Time of the Births in Successive Generations :* P. H. Leslie. *A New Regression Analyser :* G. H. Orcutt.

Vol. CXI, Part II, 1948. *Cost of Living Subsidies :* J. H. Jones. *The Fire Census and Technical Field Intelligence Work of the Joint Fire Research Organization :* J. Wallace. *United Kingdom Merchant Shipping Statistics :* M. G. Kendall. *Working Class Clothing Consumption, 1937–1938 :* Mrs. K. H. Ross.

Oxford Economic Papers (New Series).

Vol. I, No. 1, January 1949. *The Function of Exchange Rates :* Sir Hubert Henderson. *Notes on Britain's Bargaining Power :* G. D. A. MacDougall. *Programmes and Allocations in the Planned Economy :* T. Wilson. *A Reconsideration of the Theory of the Individual Business :* P. W. S. Andrews. *A Reformulation of the Theory of Consumers' Behaviour :* I. M. D. Little. *The Nature of Interest Rates :* G. L. S. Shackle. *Types of Competition and the Theory of Employment :* B. R. Williams.

The Political Quarterly.

January–March 1949. *Domestic Record of the Labour Government :* D. G. MacRae. *Next Steps in Domestic Economic Policy :* J. E. Meade. *Voluntary Action :* T. H. Marshall. *A View of Whitehall :* Pensioner. *After the American Elections :* N. Mackenzie. *Federal Constitutions and Social Planning :* W. Friedmann. *Trade Unions and Trade Unionists in Britain today :* G. D. H. Cole. *Democracy in Town and Country Planning :* Monica Felton.

The Economic History Review.

Second Series, Vol. I, No. 1, 1948. *The Birmingham Economists, 1815–1850 :* S. G. Checkland. *The Discovery of China Clay :* N. J. G. Pounds. *Ridge and Furrow and the Open Fields :* M. W. Beresford. *The Chamber of London in 1633 :* M. C. Wren. *Conjoint-Tenants and Tacksmen in the Isle of Lewis, 1715–26 :* A. Geddes. *Recent French Writings in the Social and Economic History of Modern France :* P. Leuilliot.

Population Studies.

December 1948. *Family Allowances in Belgium :* E. Susswein. *The Longevity of Jews in Canada, 1940–1942 :* M. Spiegelman. *The Estimation of Total Family Size of Occupation Groups from the Distribution of Births by Order and Duration of Marriage :* J. Hajnal. *Population Statistics and Population Registration in Norway. Part 2 :* Julie E. Backer. *A Sample Survey of the African Population of Southern Rhodesia :* J. R. H. Shaul and C. A. L. Myburgh. *Some Comments on Mr. Karmel's Paper "The Relations between Male and Female Reproduction Rates" :* J. Hajnal. *A Rejoinder :* P. H. Karmel. *A Note on some Vital Statistics of a Primitive Peasant Community in Sierra Leone :* R. D. Harding.

The Sociological Review.

Vol. XL, Section 1, 1948. *Some Conceptions of Liberty :* G. P. Gooch.

Vol. XL, Section 2, 1948. *On the Nature of Value :* B. Anstey.

Vol. XL, Section 3, 1948. *Community Integration and the Community Centres :* P. Halmos.

VOL. XL, SECTION 4, 1948. *The Mende Farming Household :* K. L. LITTLE.
VOL. XL, SECTION 5, 1948. *The Nature of an Organic Society : the concept of the " assessment group " :* G. R. TAYLOR.
VOL. XL, SECTION 6, 1948. *Social Change in Modern China :* HSIAO-TUNG FEI.
VOL. XL, SECTION 7, 1948. *Psycho-social Forces : their nature and their interaction :* M. MACKENZIE.

International Affairs.

JANUARY 1949. *The European Recovery Programme in Operation :* T. K. FINLETTER. *French Views on European Union :* R. COURTIN. *A Survey of Economic Problems in China :* A. E. MARKER. *India's Foreign Policy :* A. APPADORAI. *The Ex-Italian Colonies :* F. E. STAFFORD. *Civil Aviation ; international questions outstanding :* I. THOMAS. *The Work of the International Refugee Organization :* SIR ARTHUR RUCKER.

The Eugenics Review.

JANUARY 1949. *Byrom Stanley Bramwell, 1877–1948. The Eugenics of the Utopians :* P. BLOOMFIELD. *Legal and Social Implications of Artificial Insemination :* C. BINNEY. *Sterilization and Social Welfare :* MOYA WOODSIDE.

Accounting Research. (Published for the Incorporated Accountants' Research Committee.)

VOL. I, NO. 1. *The Presentation of the Central Government Accounts :* F. SEWELL BRAY and RICHARD STONE. *Accounting Research :* G. O. MAY. *" Fifty Years " :* F. R. M. DE PAULA. *The Nature of Income and Capital :* F. SEWELL BRAY. *The Use of Departmental Accounts, in particular as a guide to the allocation of floor-space :* E. B. PALMER. *Replacement Costs—an economist's view :* L. T. LITTLE.

Bulletin of the Oxford University Institute of Statistics.

JANUARY 1949. *Is there Bias in the Interim Index of Retail Prices? :* D. SEERS. *Nutrition at Low Cost :* T. SCHULZ.

London and Cambridge Economic Service.

VOL. XXVII, BULLETIN. FEBRUARY 1949. *United Kingdom. World Commodity Survey. Statistical Tables U.K.*

The Banker.

JANUARY 1949. *Europe's Four-Year Plans. Return to Monetary Policy?*
FEBRUARY 1949. *The Banks in 1948. Sterling for Europe. Bankers and Disinflation. Western Germany Revives :* J. MIDGLEY.
MARCH 1949. *The Future of the Stock Exchanges.* THE EDITOR, T. R. MAGUIRE, H. COWEN, H. WINCOTT, D. SACHS and A. G. ELLINGER. *The Chances of French Recovery :* C. R. HARGROVE.

The Banker's Magazine.

DECEMBER 1948. *Monetary Reconstruction. Profit in Trust Business :* D. PALUSTER. *Seasonable History :* W. RIDLEY.
JANUARY 1949. *The Road Uphill. The Banking Year. Of Minds and Men.*
FEBRUARY 1949. *Lord Catto Retires. Germany Revisited Autumn, 1948. Town and Country Planning Act, 1947 :* D. J. MALIN.
MARCH 1949. *Sterling Convertibility :* SIR CECIL KISCH. *Irish Banking in 1948.*

Barclays Bank Review.

FEBRUARY 1949. *The Need for Economy. Canada's Future.*

District Bank Review.

MARCH 1949. *Whither Prices? :* W. A. LEWIS. *The Mobility of Labour :* W. HAGENBUCH. *Economic Change in the North-West.*

Midland Bank Review.

FEBRUARY 1949. *Question-mark over the Dollar : United States monetary conditions. The Evolution of Exchange Control in the United Kingdom, 1939–49.*

National Provincial Bank Review.

FEBRUARY 1949. *The Future of Europe :* SIR DUFF COOPER. *Priorities in Tax Relief :* H. G. HODDER. *Plus ça change.*

Westminster Bank Review.

FEBRUARY 1949. *Feeding the World's Peoples :* L. DUDLEY STAMP. *The Chairman's Statement. Facts about Sugar. The Organization of Marshall Aid. Mechanization in Agriculture.*

Planning.

VOL. XV, NO. 292. *The Machine Tool Industry.*
VOL. XV, NO. 293. *The Assessment of Housing Needs.*
VOL. XV, NO. 294. *Agricultural Executives.*
VOL. XV, NO. 295. *The Motor Industry, II. Commercial Vehicles.*

Progress.

VOL. 40, NO. 221. *Pioneers in East Africa :* A. HURD. *Mental Health in Industry :* G. R. HARGREAVES. *West African Middleman :* RICHENDA SCOTT. *Television Boom :* H. THOMAS. *Four Centuries of Anglo-Dutch Relations :* CHARLES WILSON.

Town and Country Planning.

VOL. XVI, NO. 63. *Economic Background to Town Planning :* A. E. TELLING. *The Chester Redevelopment Plan :* S. MOORHOUSE. *Future of Agriculture :* H. E. SEATON.

VOL. XVI, NO. 64. *Winter, 1948–9. Around the Netherlands :* F. J. OSBORN. *Crawley New Town :* A. MINOPRIO. *Dispersal and/or Big Cities :* R. SINCLAIR.

Planning Outlook. (The Journal of the School of Town and Country Planning, King's College, Newcastle-upon-Tyne.)

VOL. 1, NO. 1. JULY 1948. *After Geddes :* T. FINDLAY LYON. *Man Proposes :* G. H. J. DAYSH. *Towards an Urban Landscape :* B. HACKETT. *Planning Legislation :* J. CHARLESWORTH. *Planning for Delight :* B. ALLSOPP.

The United Africa Company Limited Statistical and Economic Review.

NO. 2. SEPTEMBER 1948. *What Cocoa means to the Economy of the Gold Coast. Statistics. The Company's River Fleet and Port, Nigeria.*

B.I.M. Management Abstracts. (The British Institute of Management.)

VOL. I, NO. 1. SEPTEMBER 1948. *General Management and Organization. Works Management. Personnel and Welfare. Financial Management. Distribution. Supplies. Transport. Statistics. Public Administration. Education and Training.*
VOL. I, NO. 2. OCTOBER 1948. *Similar information.*
VOL. I, NO. 3. NOVEMBER 1948. *Similar information.*

The Canadian Journal of Economics and Political Science.

NOVEMBER 1948. *Freight Rates and Regionalism :* A. W. CURRIE. *Some Aspects of Recent Freight Rate Discussions :* R. E. MOFFAT. *Some Aspects of the Treatment of Time in Economic Theory :* W. C. HOOD. *Problems in Census Taking :* O. A. LEMIEUX. *Some Aspects of Rural Municipal Finance :* A. STEWART and E. J. HANSON. *The Municipal Business Tax in Canada :* R. M. CLARK. *Professor Samuelson on Foundations of Economic Analysis :* M. W. REDER.

FEBRUARY 1949. *The Use of Sampling Procedures and Role Theory in Sociological Research* : O. HALL. *The Economics of Low-Rent Housing* : L. C. MARSH. *The Development of National Accounts in Canada* : S. A. GOLDBERG. *Industrial Relations Research and Social Theory* : C. W. M. HART. *Electoral Corruption and Controverted Elections* : N. WARD. *Administration and Primitive Economy* : H. B. HAWTHORN.

The Economic Record.

DECEMBER 1949. *Towards a Dynamic Economics* : B. HIGGINS. *Professor Jewkes and the Alternative to Planning* : D. B. COPLAND. *Building Industry Statistics* : J. M. HAMILTON and J. M. WARK. *Australian Tariffs and Imperial Control* : J. A. LA NAUZE. *Financial Systems in Federations* : G. L. WOOD. *The Australian Coal Industry* : F. R. E. MAULDON.

The South African Journal of Economics.

SEPTEMBER 1948. *The Coal Industry in the Union of South Africa* : P. E. HALL. *Native Urban Employment* : SHEILA T. V. D. HORST. *Limiting Factors in World Development, or what is possible?* : SIR HAROLD HARTLEY. *The Industrial Council System and the Community* : SHEILA T. V. D. HORST.

DECEMBER 1948. *The Development of the Use of Electricity in South Africa. Investigation into the Distributive Trade in Blankets (Transvaal) under Conditions of Controlled and Free Markets, 1947–48* : T. VAN WAASDIJK. *The Balance of Payments of Southern Rhodesia, 1939–1947* : CENTRAL AFRICAN STATISTICAL OFFICE. *Some Problems in Writing an Official "Civil" History of the War* : H. M. ROBERTSON.

The Indian Journal of Economics.

JULY 1948. *Utility and its Place in Economics* : V. S. ANANTACHAR. *Some Factors in Indian Economic Development* : W. ADAM. *Subjective Cost of Financing Industrialisation* : N. K. SARKAR. *Peace in Industry* : S. K. RUDRA.

OCTOBER 1948. *Conference Number, Budgetary Scope for Planning in Madras* : R. BALAKRISHNA. *National Budgets and Economic Planning* : V. M. PARANJPE. *Budgeting for Full Employment* : R. N. PODUVAL. *Budgets and Planning in India* : K. N. BHATTACHARYA. *Measurement of the "Burden" of the Public Debt* : K. L. DALAL. *Post-war Planning and Budgetary Policy in India* : V. R. CIRVANTE. *Planning of Production through Tax Adjustments* : M. H. GOPAL. *The Dollar Shortage and the International Monetary Co-operation* : V. M. PARANJPE. *The Future of International Investment* : K. ANANTARAM. *International Economic Relations* : R. K. HABBU. *Industrial Disputes in India* : V. JAGANNADHAM. *Industrial Relations—an Analysis of the Fundamental Issues Involved* : P. C. MALHOTRA. *Industrial Relations in India* : Y. S. MAHAJAN, R.V. RAO, H. K. MISRA and V. V. SAYANNA. *Profit Sharing, the Incentive* : H. K. DATT.

The Indian Journal of Commerce.

VOL. I, NO. 1. *Contradictory Effects of Inflationary Spiral* : SIR CHUNILAL B. MEHTA. *Depreciation—an accounting analysis* : A. N. AGARWALA. *Indian Economy after Partition* : K. L. GOVIL. *Some Aspects of our Railway Companies' Freight Rate Structure* : B. B. SEN. *A National Policy of Industrial Location* : M. M. MEHTA. *Should the Zamindari System in U.P. be Abolished?* : KUNWAR SIR J. PRASAD.

The Eastern Economist.

ANNUAL NUMBER. DECEMBER 1948. A POLITICAL REPORT : *India's New Constitution : The Integration of the States. India and the World Indo–Pakistan Relations. New Currents in the Political Scene. Outlook for 1949.* AN ECONOMIC REPORT. *Foreword. The National Income : its volume and production; its distribution. Saving and Investment. The Story of Prices. Statistical Appendix to the Report. Banking in 1948.*

Bullion in 1948. The Stock Exchanges Annual Review. SPECIAL ARTICLES. *Industrial Policy and Industrial Relations. Railway Transport. Civil Aviation. India's Foreign Trade. The Balance Sheet of Foreign Exchange.*

Tata Quarterly.

OCTOBER 1948. *The Problem of Increasing Production. Economic and financial review. Statistical tables.*

International Labour Review.

DECEMBER 1948. *The 40-Hours Case and the Change in Standard Hours in Australian Industry :* O. DE R. FOENANDER. *Industrial Home Work. Man-power Requirements and Availabilities in Europe in 1948. Second Session of the I.L.O. Textiles Committee.*
JANUARY 1949. *The International Industrial Safety Movement. The Labour Policy of the Chinese Government and its Reactions on Industry and Labour :* TA CHEN. *The Czechoslovak Five-Year Plan. Italian Agricultural Emigration to France.*

I.C.A.O. Monthly Bulletin.

DECEMBER 1948. *Current activities of the International Civil Aviation Organization.*
JANUARY 1949. *Relations with other International Organizations.*
FEBRUARY 1949. *Similar information.*

Quarterly Journal of Economics.

NOVEMBER 1948. *The Economics of a "Free" Society ; four essays :* O. H. TAYLOR. *The Union as a Monopoly :* C. E. LINDBLOM. *Investment Repercussions :* L. M. LACHMAN. *On the Politics of the Classical Economists :* W. D. GRAMPP. *Equilibrium in International Trade ; a diagrammatic analysis :* R. E. BALDWIN. *The Fallacies of Lord Keynes' General Theory :* J. TOBIN and J. RUEFF. *The Influence of Unionism upon Earnings :* R. A. LESTER and A. M. ROSS. *An Error in Ricardo's Exposition of his Theory of Rent :* H. G. JOHNSON.

The Annals of the American Academy of Political and Social Science.

NOVEMBER 1948. *Postwar Reconstruction in Western Germany.*
JANUARY 1949. *Juvenile Delinquency.*

The Journal of Political Economy.

OCTOBER 1948. *Postwar Political Economy :* M. BRONFENBRENNER. *Keynes and the Economic System :* C. B. HOOVER. *European Multilateral Clearing :* R. W. BEAN. *The Role of Dissaving in Economic Analysis :* G. GARVY. *Price Inflexibility—war and postwar :* J. BACKMAN. *Soviet Postwar Industrial Production :* H. SCHWARTZ. *Mikesell on International Monetary Agreements and Planned Economies :* V. SALERA.
DECEMBER 1948. *Occupational Choice in a Collectivist Economy :* D. J. DEWEY. *Professor Heimann on Religion and Economics :* F. H. KNIGHT. *Income Tax Progression, 1929–48 :* R. A. MUSGRAVE and TUN THIN. *National Patterns of Union Behavior :* A. STURMTHAL. *Public Expenditures for Veterans' Assistance :* I. H. SIEGEL and M. F. W. TAYLOR. *Theories of Income Distribution : where do we stand ? :* MARY J. BOWMAN.
FEBRUARY 1949. *Tariffs, the Terms of Trade, and the Distribution of National Income :* L. A. METZLER. *Economics of Scheduling for Industrial Mobilization :* S. M. ROBBINS and T. E. MURPHY. *The Welfare Aspects of Excise Taxes :* E. R. ROLPH and G. F. BREAK. *Rostow's Proposals for Petroleum Policy :* J. S. BAIN. *A Reply :* E. V. ROSTOW. *The Cash Ratio in English Banks before 1800 :* J. K. HORSEFIELD. *Significance of Bank Capital Ratios :* HELEN J. MELLON COOKE.

The Review of Economics and Statistics.

NOVEMBER 1948. *The Direction of Change in Income and the Consumption Function:* RUTH P. MACK. *Keynes and Economic Analysis Today:* J. W. ANGELL. *Outline of a System of Multi-compensatory Trade:* R. FRISCH. *Professor Frisch on Discrimination and Multilateral Trade:* R. HINSHAW. *Exchange Depreciation and Economic Readjustment:* T. BALOGH. *A Note on Professor Schultz's Analysis of the Long Run Agricultural Problem:* C. KAYSEN and J. H. LORIE. *A Comment:* T. W. SCHULTZ. *A Rejoinder:* C. KAYSEN and J. H. LORIE. *Woytinsky on Consumption and Savings:* V. L. BASSIE. *Consumption-Saving Function:* I. FRIEND. *Monetary Velocity and Monetary Policy:* C. WARBURTON. *A Rejoinder:* J. TOBIN.

The American Economic Review.

DECEMBER 1948. *The Problem of Capital Accumulation:* E. D. DOMAR. *Planned Economy in Norway:* L. R. KLEIN. *Exit Basing Point Pricing:* F. A. FETTER. *Basing Point Decisions and Business Practices:* C. D. EDWARDS. *Taxation and Inflation Control:* L. SHERE. *The Burden of Import Duties:* A. E. KAHN and E. R. ROLPH. *Marginal Cost Constancy and its Implications:* H. APEL.

Social Research.

DECEMBER 1948. *The Economic Position of Israel:* A. JOHNSON. *Limitations of Keynesian Economics:* W. VICKREY. *Pluralist Democracy—the Swedish Experience:* G. HECKSCHER. *The Origins of Scientism:* E. VOEGELIN. *Language:* K. RIEZLER.

Econometrica.

OCTOBER 1948. *Homogeneous Systems in Mathematical Economics:* G. TINTNER. *The Pure Theory of Production applied to the French Gas Industry:* M. J. J. VERHULST. *Some Conditions of Macro-economic Stability:* D. HAWKINS. *A Note on the Statistical Estimation of Supply and Demand Relations from Time Series:* M. S. BARTLETT. *Remarques et Suggestions Relatives aux Nombres-indices:* A. NATAF and R. ROY. *A Theoretical and Statistical Dilemma—the contributions of Burns, Mitchell and Frickey to Business Cycle Theory:* E. AMES. *The Short-Term Interest Rate and the Velocity of Circulation:* J. N. BEHRMAN.

JANUARY 1949. *The Indeterminacy of Absolute Prices in Classical Economic Theory:* DON PATINKIN. *On the Zeros of Homogeneous Functions:* R. FRISCH. *Determination of Linear Relations between Systematic Parts of Variables with Errors of Observation the Variances of Which are Unknown:* R. C. GEARY. *Econometrics and Thermodynamics: a remark on Davis' Theory of Budgets:* J. H. C. LISMAN.

Industrial and Labor Relations Review.

VOL. II, NO. 2. JANUARY 1949. *Productivity and Living Standards:* J. BACKMAN and M. R. GAINSBRUGH. *Union-Management Co-operation and Productivity:* R. DUBIN. *The Association of Catholic Trade Unionists:* P. TAFT. *Employee Adjustment to Technological Displacement: the Fifth Avenue Coach Company Case:* J. W. MCCONNELL and B. P. LAMPERT.

The Journal of Economic History.

NOVEMBER 1948. *Real Values in British Foreign Trade, 1795–1853:* A. H. IMLAH. *Charity Endowments as Sources of Local Credit in Seventeenth- and Eighteenth-Century England:* F. G. JAMES. *The Keynesian Revolution and Economic Development:* D. DILLARD.

The Southern Economic Journal.

JANUARY 1949. *J. M. Keynes' Concept of Economic Science:* A. G. GRUCHY. *Methods of Financing the European Recovery Program:* R. FREUND. *Sources of Funds for Financing Plant Expansion, 1946–1948:* L. K. BRANDT. *The Status of Stagnation Theory, Part II:* H. R.

SMITH. *Some Comments upon the Effectiveness of State and Local Area Development Programs* : C. S. LOGSDON. *Supervisory Employees and the Taft–Hartley Law* : R. D. LEITER. *Minimum Wages and the Level of Employment* : D. HAMBERG.

Agricultural History.

OCTOBER 1948. *Man's Place in the Sun* : JANE CARTER. *Europe's Recurrent Land Problem* : V. ALTON MOODY. *Agriculture in the Undrained Basin of Asia* : G. W. ANDERSON. *Railroad Service to Virginia Farmers, 1828–1860* : C. W. TURNER. *Advancing Trends in Southern Agriculture, 1840–1860* : J. C. BONNER. *The Wyoming Stock Growers' Association* : *its years of temporary decline, 1886–1890* : W. T. JACKSON.

Journal of Farm Economics.

NOVEMBER 1948. *Current Proposals for the Organization of Conservation and Land-Use Programs in Agriculture, the United States* : C. M. HARDIN. *The Economics of Rotations with Farm and Production Policy Applications* : E. O. HEADY. *Objectives and Methods of Government Pricing of Farm Products* : W. M. DRUMMOND. *Appraisal of the Economic Classification of Farms* : K. L. BACHMAN, J. C. ELLICKSON, W. D. GOODSELL and R. HURLEY. *Provision for Nutrition in the Formulation of Agricultural Programs* : J. D. BLACK. *The Effect of Size of Herd on Milk Production Costs* : W. W. WILCOX and E. RAUCHENSTEIN. *Allocation of Agricultural Income* : D. G. JOHNSON.

American Affairs.

JANUARY 1949. *Laissez Faire* : G. GARRETT. *Perils of the Military Strain* : E. G. NOURSE. *Human Rights on Pink Paper* : F. E. HOLMAN. *News of ITO and GATT. Case for the Charter. Legal Fluoroscope of the World Trade Charter. ITO Spells a Planned World* : E. H. KILLHEFFER.

Studies in Business and Economics. (Bureau of Business and Economic Research, College of Business and Public Administration, University of Maryland.)

VOL. II, NO. 1. JUNE 1948. *Anne Arundel County, Maryland; its economic development and potentials*

VOL. II, NO. 2. SEPTEMBER 1948. *Sampling Retail Prices. Maryland and Baltimore Non-Agricultural Employment.*

Hilgardia. (A journal of agricultural science published by the California Agricultural Experiment Station.)

DECEMBER 1947. *Major Economic Forces affecting Agriculture, with particular reference to California* : S. V. CIRIACY-WANTRUP.

Revue d'Économie Politique.

SEPTEMBER–OCTOBER 1948. *La population de la France* : H. BUNLE. *L'évolution des prix* : R. RIVET. *Revenu national et comptabilité économique* : R. FROMENT and P. GAVANIER. *Reconstruction* : J. VERGEOT. *Le budget, la trésorerie et la dette publique* : H. LAUFENBURGER. *La législation fiscale* : L. TROTABAS. *Le marché de l'argent à court terme* : F. M. *Le marché des changes* : P. VIGREUX. *Les banques* : A. POSE. *La bourse des valeurs* : J. DESSIRIER. *Les émissions* : P. HAOUR. *Les caisses d'épargne* : H. ANGLADE. *Les assurances* : J. FOURASTIE.

Revue de Science et de Législation Financières.

OCTOBER–DECEMBER 1948. *L'Internationalisation des finances publiques* : F. TREVOUX. *Les nouveaux objectifs de la politique financière de l'État* : A. ANGELOPOULOS. *Les relations monétaires franco-libanaises* : G. LEDUC. *La réforme fiscale en Italie* : C. COSCIANI.

Population.

JULY–SEPTEMBER 1948. *Faits et problèmes du jour* : A. SAUVY. *L'habitation moderne* : LE CORBUSIER. *Aspects historiques et contemporains de*

l'immigration australienne : W. D. BORRIE. *Conséquences et intérêt démographiques de la Peste noire de 1348 :* Y. RENOUARD. *La situation démographique de l'Italie :* G. TAGLIACARNE. *Anthropologie et démographie :* R. GESSAIN. *Répercussions des calamités de guerre sur la première enfance :* HÉLÈNE BERGUES: *Les conditions d'existence des familles. Les dépenses d'habillement :* A. GIRARD.

OCTOBER–DECEMBER 1948. *Fréquence et répartition des mariages consanguins en France :* J. SUTTER and L. TABAH. *La mortalité infantile dans les familles nombreuses :* L. HENRY. *Deux modalités de la politique d'aide à la famille. Prestations en espèces et prestations en nature :* J. DOUBLET. *La situation démographique de la Grande-Bretagne. Comparaison avec celle de la France :* J. BOURGEOIS-PICHAT. *Les transferts de populations entre d'Hindoustan et le Pakistan :* S. CHANDRASEKHAR. *La peuplement des nouveaux territoires polonais :* J. DARIC.

Statistiques et Études Financières. (*Ministère des Finances.*)

NO. 1, JANUARY 1949. ÉTUDES. *L'analyse de la situation monétaire d'après les bilans hebdomadaires de la Banque de France. L'évolution du volume des échanges d'après le recouvrement de la taxe sur les transactions.* II. STATISTIQUES. *Les recettes publiques en octobre et en novembre 1948. Évolution des recettes publiques. Budget de l'État et de la Caisse autonome d'amortissement. Recettes des Postes, Telegraphes et Téléphones. Recettes de Chemins de fer. La Trésorerie et la Dette publique. Évolution des opérations du Trésor de 1 er janvier au 31 octobre 1948. Situation au 31 octobre 1948 de la Dette publique de l'État et de la Caisse autonome d'amortissement. La monnaie et le crédit. Évolution du bilan de la Banque de France du 25 novembre au 23 décembre 1948. Opérations des Caisses d'épargne en octobre et novembre 1948. Activité du service des cheques postaux au cours du mois d'octobre 1948. Cours des changes au ler janvier 1949. Le commerce extérieur au cours des mois d'octobre et de novembre 1948. Tableau comparatif, en valeur et en tonnage, des importations et des exportations. Tableau par groupement d'utilisation des importations et exportations.* III. FINANCES COMPARÉES. *L'imposition des bénéfices agricoles dans l'Union Française et a l'étranger. Le budget belge pour l'exercice 1949. Le budget de la Confédération Suisse pour l'exercice 1949.*

NO. 2, FEBRUARY 1949. I. ÉTUDES. *Les salaires distribués par catégories professionnelles dans l'industrie et le commerce en 1947 et déclarés en 1948 à l'Administration des Contributions directes. Évolution de la Trésorerie au cours de l'année 1948. Évolution de la masse monétaire en 1948.* II. STATISTIQUES. *Les recettes publiques en décembre 1948. Evolution des opérations du Trésor du 1 er janvier au 30 novembre 1948. Situation au 30 novembre 1948 de la Dette publique de l'État et de la Caisse autonome d'amortissement. La monnaie et le crédit. Le commerce extérieur en décembre 1948 et résultats d'ensemble pour 1948.* III. FINANCES COMPARÉES. *Belgique : la réforme des finances locales. États-Unis : le message sur la situation de l'Union; le message budgétaire; le rapport économique du President au Congrès. Turquie : le revenu national de 1949 à 1953.*

Documentation Économique.

VOL. VII, NO. 25, 1948.

Revue de l'Institut de Sociologie.

JULY–SEPTEMBER 1948. *Le problème du bon choix :* C. PERELMAN. *Économie politique et économie sociale :* A. DOUCY.

Bulletin de l'Institut de Recherches Économiques et Sociales.

OCTOBER 1948. *Le problème de finances publiques en Belgique et la politique économique :* J. JUSSIANT, C. ROGER and P. VAN DER REST. *Esquisse d'une analyse du phénomène de substitution :* R. LAMY. *Les conceptions dirigistes aux Pays-Bas :* J. VAN DER MENSBRUGGHE.

Kyklos.

VOL. II, No. 3, 1948. *Greatness and Decline of Planned Economy in the Hellenistic World (1st part) :* L. EINAUDI. *Die natürliche Ordnung. Die neue Phase der wirtschafts-politischen Diskussion :* W. RÖPKE. *Perspectives démographiques. A la mémoire de Robert-René Kuczynski 1876–1947 :* G. FRUMKIN. *Purchasing Power Parity and the Pound Sterling from 1919–1925 :* W. F. STOLPER.

De Economist.

NOVEMBER 1948. *In Memoriam Prof. Dr. C. A. Verrijn Stuart :* F. DE VRIES. An obituary notice in honour of Professor Verrijn Stuart (December 22, 1865–October 26, 1948), "the Nestor of Dutch economists." *Economisch Hoger Onderwijs in een tijdperk van structuurveranderingen :* P. J. BOUMAN. An article devoted to a consideration of the influence which the economic and social structure exercises on economic instruction; and conversely, in what measure reform in education may increase the tempo of changes in structure. Following Sombart, the writer distinguishes early, modern and late capitalism. In early capitalism (fourteenth and fifteenth centuries), marked by renaissance of trade, there was no relation to instruction. Modern capitalism, deriving from the third quarter of the eighteenth century, demanded scientific education. The development of modern commercial education in Holland is traced: when the Nederlandse Handelshochschule was founded in 1913, emphasis was laid on its immediate practical bearing. Late capitalism is marked by development of monopoly and increased bureaucratisation; and there is therefore need for wider education. The objects of the Handelshochschule are now more widely defined, and only 35% of the students in fact follow business careers in the strict sense. Two criticisms of prevailing business education are indicated: (i) it tends to be too specialised, whereas it is characteristic of late-capitalistic changes in structure that the economic, the political and the social sphere influence each other more and more; (ii) there is a lack of a general social view-point in economic education. Economists need a greater knowledge of "social questions" (*e.g.*, industrial relations). Reference is made to contemporary education in the U.S.A., in London, Cambridge and Oxford, and in Germany. *Vrijheid en internationale samenwerking :* H. J. WITTEVEEN. The present period of transition is also a period of transition in economic policy. In the matter of government control and activity the position is unstable; but there are reasons alike against a return to *laissez-faire* and an advance to complete nationalisation. There is hope for freedom only if the problem of unemployment can be solved. Policy should be consciously directed to avoidance of mass unemployment and to the maintenance of freedom. Keynes and Tinbergen are cited as the writers whose works are of most significance for a solution. Keynes is summarised; and with him the proposals of Beveridge and Polanyi are also discussed. Beveridge's proposals might give full employment, but not in a free society. The problem becomes more complicated when international relations are considered. Tinbergen is cited in connection with the problem of maintaining equilibrium in the balance of payments. Bretton Woods and the I.M.F. are regarded as inadequate.

DECEMBER 1948. *Het handvest van Havana :* TJ. A. MEURS. An account of the events leading to the United Nations Conference on Trade and Employment at Havana, Cuba; and of the Final Act and the Havana Charter for an international trade organization (signed March 24, 1948). The article summarises the principles and the contents of the agreement; and discusses in particular: (i) measures directed to diminishing obstacles to trade; (ii) measures for promoting international trade; (iii) the nature of the International Trade Organisation contemplated; (iv) methods of settling differences. (The agreement in question is published in this country as Cmd. 7375.) *Compensatie en coördinatie in het verkeerswezen :* H. A. A. DE MELVERDA. In effect, a discussion of

certain general principles in connection with the determination of rates in railway and other forms of traffic, with special reference to what is here called "Compensation," *i.e.*, the apportionment of rates between different kinds of traffic and different forms of transport. Compensation has been one of the most neglected subjects in transport economics. Compensation, as here defined, may take the form of discrimination or equalisation. The possibility of compensation increases with the size of the unit within which compensation takes place. The question of the distribution of different kinds of traffic between different kinds of transport is considered. (In America it is suggested that first-class passengers on the railways are taking to the air, and third-class passengers to the buses.) In the past there has been a policy of equalising railway rates in the interests of those districts where traffic is light: this policy may have to be reconsidered when confronted with the fact that these districts can be better served by road traffic. The question of capacity is fundamental. It is the peculiarity of transport that while expansion is relatively easy, contraction is unusually difficult. Hence there is need of a traffic policy as a whole; and hence also the problem of dealing with excessive capacity when it arises. Variation in the structure of the tariff brings variation in the structure of the traffic industry; and the consequences of forms of compensation have to be considered in all questions of traffic co-ordination. The question of traffic co-ordination can be described as the problem concerned with the organisational measures necessary to maintain certain determined forms of compensation: the question of compensation is primary, while that of co-ordination is secondary.

JANUARY 1949. (The present number of *De Economist* comprises four preliminary papers prepared in connection with the Congress on the Increase of Population, held on March 26, 1949, at Amsterdam under the auspices of the "Instituut voor Social Onderzoek van het Nederlandse volk.") *De tegenwoordige en toekomstige demografische situatie in Nederland:* W. R. HEERE. A detailed examination of past population statistics for the Netherlands, indicating variation of experience in different provinces, and for different occupations and for different religious confessions. There is a tendency for differences to be flattened out, primarily for the death-rate, but also for the birth-rate. Estimates of population at different dates in the future are considered. There is need for a careful study of population problems for the guidance of the appropriate administrative authorities in the problems with which they are confronted. *Bevolkingsvermeerdering en economische knelpunten:* W. J. VAN DE WOESTIJNE. Changes in population are not due solely to economic causes, and they have consequences other than economic. Factors, other than those of population, will affect the economic difficulties of the future. An optimistic view is possible: the regular growth of population has not led to a relative diminution of the productive sector of the population, and capital goods have increased more rapidly than population. It is not in the increase of population in itself, but in structural changes in other factors, that we must look for a possible hampering population-question. What is usually called the "population-question" arises because it is not possible to maintain all quantitative relations unchanged. The problem of population and of the optimum population is discussed in relation to the Laws of Diminishing and Increasing Returns. The actual population can, normally, change only very slowly, whereas the optimum population may undergo significant changes in a short period. Alterations since 1940 with a bearing on the population-question in the long run are listed. They include: the transition in Western Europe from a creditor to a debtor position; the fact that what were formerly agricultural export-areas have turned to industry: the alteration in the relation of export-prices to import-prices to the disadvantage of Europe; the possible slowing down of capital formation. The chances that other economic elements will develop uniformly with the increase of population is less than in 1940, and certainly less than before 1914. *Bevolkingsvermeerdering en arbeidsvoorziening:* W.

STEIGENGA. A discussion of problems related to the supply of labour, based on a consideration of the number of young people (10–14) replacing those leaving work (55–59). There are shifts in the structure of the supply of labour, which may well have social repercussions. The problem of unemployment in the Netherlands is discussed. On a survey of the literature of the last forty years, the impression gained is of a continual surplus of labour. Since the liberation, there has been a shortage of labour. Certain reasons are cited in explanation of this shortage (*e.g.*, diminished productivity; continuation of military service; larger numbers employed in administration; labour temporarily on replacements and repairs). With regard to the future and the possibility of surplus population, solutions are indicated. Kohnstamm has advocated industrialisation. A conscious policy of emigration is needed. The advantages and disadvantages of emigration, for the country concerned and internationally, are assessed. *Bevolkingsvermeerdering en bevolkingsspreiding :* L. H. J. ANGENOT. The writer analyses as at various dates the geographical distribution of the population of the Netherlands as between the Provinces. Consideration is given to the causes of the growth of Amsterdam, Rotterdam and The Hague. Future tendencies will be affected by the changed position of Western Europe in the world economy. The probable future geographical distribution of population when the Netherlands have reached the 13 million mark is forecast. There will be need for care in guiding the growth and development of cities affected.

FEBRUARY 1949. *De voorkeursintensiteit en het tweezijdige monopolie :* J. PEN. The older subjective theory of value suffered from the defect (recognised by von Wieser) that "needs" (utility) are not measurable. To meet this difficulty, the theory of Hicks replaces wants and needs by "scales of preference." It is the fact of preference rather than the intensity of preference that is relevant for economic theory. The optimum position is determined by the ideas of "indifference" and "preference." Accordingly the quantitative conception of utility disappears from analysis, and Gossen's first law is replaced by the idea of the marginal rate of substitution. The idea of marginal utility also disappears. Probably in the next generation there will accordingly be a tendency to get rid of "marginal utility" altogether. This, the writer argues, is not desirable. The idea of "utility" and of the "intensity of want" cannot be spared. This is shown by reference to the case of bilateral monopoly, which is discussed. Appeal is made to Mr. Armstrong's article in the issue of the ECONOMIC JOURNAL for March 1948. *De moderne statistiek en haar plaats in het hoger onderwijs :* G. GOUDSWAARD. There is difficulty in defining statistics. The definition here suggested is the "theory of the quantitative investigation of collective phenomena." The writer discusses, in this inaugural address, recent developments in "administrative statistics" and in "statistical analysis," and the use of statistics in various fields of knowledge. In approaching the question of the place of statistics in education, a division of statisticians into four classes is suggested, with a somewhat different equipment necessary in each case. These are : (i) administrative statisticians, who are "producers of statistics"; (ii) economists, who are "consumers of statistics"; (iii) econometrists, who are "consumers of statistical methods"; and (iv) "producers of statistical methods," who are specialist mathematicians. *Over kettingcompensaties en haar mogelijke actualiteit in de naaste toekomst :* W. TH. VOGELAAR. As an illustration of "compensation-trading," the position of the Skoda works in Czechoslovakia is considered, along with the activities and development of the Iranian Skoda Company, Ltd. In the light of this, the difficulties confronting Great Britain in world trade are discussed, and a resort to "compensation-trading" and the development of bilateral trade are recommended. The writer indicates the part that might be played in this country by the establishment of a "Compensation Trading, Ltd."

Schweizerische Zeitschrift für Volkswirtschaft und Statistik.

DECEMBER 1948. *Vilfredo Pareto und seine Bedeutung für die Gegenwart :* O. WEINBERGER. *Rückblick auf die Soziologie Vilfredo Paretos :* H. KARRER. *Grundfragen des Zahlungsbilanzaus-gleichs :* E. KÜNG. *Examen, de conscience ou de quelques expériences monétaires contemporaines :* M. VAN ZEELAND. *Wesen und Verhalten der Umlaufgeschwindigkeit des Geldes :* S. SAGOROFF.

FEBRUARY 1949. *Der freie Finanzdollarmarkt—eine währungspolitische Botwendigkeit :* A. BOSSHARDT. *Some Aspects of the Dollar Problem in Switzerland :* PER JACOBSSON. *Der Stand der Dollarfrage :* H. SIEBER. *Bemerkungen zur Dollarfrage :* V. F. WAGNER. *Theorie der Glücksspiele und ökonomisches Verhalten :* O. ANDERSON.

Aussenwirtschaft.

DECEMBER 1948. *Die Marshall-Hilfe :* H. BACHMANN. *Aktuelle Wechselkursprobleme :* E. KÜNG. *Internationale Kartelle und zwischenstaatliche Stapelgüterabkommen :* F. HAUSSMAN. *Aussenwirt-schaftliche Chronik :* H. BACHMANN and A. BOSSHARDT.

Société de Banque Suisse.

BULLETIN 1, 1949. *Organisation Européenne de Coopération Économique (O.E.C.E.). Accord de Paiements et de Compensations entre les Pays Européens.*

Giornale degli Economisti e Annali di Economia.

JULY–AUGUST 1948. *Schemi di calcolo economico su dati incerti :* G. FUÀ. A lengthy article dealing with attempts to calculate the effects of uncertainty. After a rapid survey of past literature and of the work of contemporary economists in this field, the writer puts forward suggestions of his own in terms of plausibility—" that poor relation of probability." He then applies his method with algebraic examples to the problem of the effects of a proportional income tax on the selection of risky openings for investment. *Sugli indici alfa e delta :* M. DE VERGOTTINI. A reply to a criticism by Pizzetti in the January 1948 issue of the *Giornale*, of an article by the author, dealing with the applicability of alpha and delta indices to the distribution of incomes, which had appeared in the January 1947 issue of the *Giornale*. *Nota ad una " nota sul concetto di capitale fisso e di capitale circolante " :* G. DEMARIA. A criticism of a recent suggestion put forward by Professor Amoroso for a new interpretation of the terms fixed capital and circulating capital in the light of the significance of amortisation quotas. The writer finds Professor Amoroso's new definition neither logically valid nor helpful as an economic concept. *Sulla misura della progressività delle imposte progressive :* P. GENNARO. The writer distinguishes between the " technical " progressiveness of a tax as determined by the tax law itself, independently of the way in which the tax actually falls on the incomes assessed, and the " effective " progressiveness of the tax as shown by its yield and distribution in comparison with what these would have been if the tax had been proportional. He constructs indices expressing each of these two methods of measurement, and applies them to specific examples of progressive taxes in Italy, Great Britain and the United States. It is the second type of index which he regards as the more suggestive and important for the economist.

SEPTEMBER–OCTOBER 1948. *Sguardo alla politica economico-finanziaria degli Stati Uniti :* V. MARRAMA. A very interesting, and statistically well-documented article, written from Cambridge, Massachusetts, describing the economic and financial prospects of the United States. A strongly pessimistic view of the immediate future is taken on the ground that the whole American economy is becoming increasingly unbalanced and is plunging ever more deeply into inflation. The chief hope of avoiding major social conflicts, with quite unforeseeable results, lies in securing such a degree of co-operation between the different social

classes and the governing class as would make possible that type of planned economy which is essential for the operation of a system of full employment under democratic conditions. *Le equazioni della dinamica economica nel caso più semplice del regime di libera concorrenza completa :* G. SENSINI. A highly abstract article in which are put forward a series of differential and integral equations for a dynamic economy under certain rigid assumptions, notably that of perfect competition. *Gli articoli del Cavour sul giornale " Il Risorgimento " (1847–1850) :* P. ROSSI. An account of some of the articles on political, economic and other topics contributed by Cavour to the daily newspaper *Il Risorgimento,* of which he was the editor from April to October 1848. The articles show that he was an ardent free trader and that his views on economic policy ran on much the same lines as those of Richard Cobden. *Per la storia delle " colonie " mercantili italiane medievali, il " libro della communità dei mercanti lucchesi in Bruges " :* A. DE MADDALENA. A review article of a book just published dealing with the activities of the small community or " colony " of Italian merchants from the city of Lucca who during the fourteenth and fifteenth centuries were settled in Bruges.

NOVEMBER–DECEMBER 1948. *Nell'anniversario della nas cita di Vilfredo Pareto, 15 luglio 1848– 19 agosto 1923. Pareto matematico ed economista :* L. AMOROSO. *Vilfredo Pareto, il sociologo :* P. JANNACCONE. *Modelli di commercio internazionale :* J. TINBERGEN. *La teoria della circolazione di V. Pareto :* F. CHESSA. *Come un supposto paradosso della pratica degli scambi internazionali, non sia che un malinteso della teoria :* A. DE PIETRI-TONELLI. *L'equilibrio sociale ed il classismo :* A. LANZILLO. *Monopoli e concorrenze nel pensiero di Pareto :* F. VINCI. *Un manoscritto inedito di Vilfredo Pareto :* G. N. BOUSQUET.

Economia Internazionale.

VOL. 1, NO. 4, NOVEMBER 1948. *Scambi internazionali e problema sociale :* J. MAZZEI. *Commenti all'articolo del Dr. Triffin sul sistema bancario e l'economia internazionale :* G. HABERLER. *Della ricostituzione e della stabilità dell'equilibrio economico internazionale :* V. TRAVAGLINI. *Discriminazione, problemi del commercio britannico e Piano Marshall :* T. BALOGH. *Una causa di attrito alla ripresa del commercio internazionale :* L. LIVI. *Emigrazione e Commonwealth britannico :* B. THOMAS. *La previsione nella teoria generale del commercio internazionale :* A. BORDIN. *L'aspetto internazionale della teoria del pieno impiego :* L. FEDERICI.

Review of the Economic Conditions in Italy.

NOVEMBER 1948. *Expenditure of the " Lire Fund " for Anti-cyclical Purposes :* G. DI NARDI.

JANUARY 1949. *Interest Rates in Italy :* C. BRESCIANI-TURRONI.

Italian Economic Survey.

NOVEMBER–DECEMBER 1948. *Italian Economic Prospects. The Italian Industrial Situation.*

Critica Economica.

OCTOBER 1948. *Esperienze del primo periodo di pianificazione in Cecoslovacchia :* E. OUTRATA. *L'emigrazione come problema internazionale :* LEMANICO. *La politica delle priorità ed il pensiero degli economisti inglesi :* F. CAFFÈ. *Il piano sovietico e i piani dell'Europa Orientale in una rassegna dell'E.C.A. :* G. PIETRANERA.

DECEMBER 1948. *Aziende pubbliche, aziende private e difetti della burocrazia :* C. RODANÒ. *La prodittivita del lavoro ed il livello dei salari :* A. GRAZIADEI.

L'Industria.

NO. 3, 1948. *Realizzazioni e obiettivi della statistica italiana :* B. BARBERI. *La politica economica del partito comunista :* B. PAGANI. *Una pietra angolare del sistema keynesiano : la propensione al consumo :* F. DI FENIZIO. *Il reddito nazionale :* A. C. PIGOU.

No. 4, 1948. *Siamo costretti ad adottare una economia pianificata?*: W. EUCKEN. *Possibilità e limiti delle previsioni economiche*: L. LIVI. *Perchè variano gli "investimenti" nei moderni sistemi economici?*: F. DI FENIZIO. *La distribuzione del reddito*: A. C. PIGOU.

Banca Nazionale del Lavoro Quarterly Review.

OCTOBER 1948. *Interest Rate Policy and Reconstruction Requirements*: G. BORGATTA. *The E.R.P. and the Problems of Italian Agriculture*: G. MEDICI. *The Depreciation of the Peso and Trade between Italy and Argentina*: G. LUZZATTO. *Unemployment and Emigration in Italy in the light of the E.R.P. and O.E.E.C.*: G. COSMO. *The Housing Problem in Italy*: S. ALBERTI.

Moneda y Crédito.

SEPTEMBER 1948. *La comunidad económica internacional*: F. VITO. *Economía y alimentación*: V. A. ALVAREZ. *La Banca española en 1947*: I. C. GARRIGOS. *El Seguro en las épocas de transición económica*: F. R. P. ALDAVE.

Revista de Ciencia Aplicada.

OCTOBER–DECEMBER 1948. *Modernos generadores electrostáticos*: J. B. ELÍAS and L. MIRANDA GONZÁLEZ-MONTES. *Las fitohormonas y sus aplicaciones*: R. C. LINARES. *Teoría y técnica de la celulosa*: E. RUGARCÍA. *Nuevas aleaciones no férricas*: R. ALTAMIRA.

Zeitschrift für die Gesamte Staatswissenschaft.

VOL. 105, NO. 1. *Gegenwartsaufgaben der Sozialwissenschaften in Deutschland*: H. SAUERMANN. *Das Studium der Sozialwissenschaften an den britischen Universitäten*: G. D. H. COLE. *Zur Metaphysik der Kulturstile*: A. MÜLLER-ARMACK. *Rechtsanwalt in München: die Grundlagen der heutigen Verfassung Deutschlands und das Friedensproblem*: W. SEUFFERT. *Aspects juridiques des budgets anglais et français*: H. LAUFENBURGER. *Mögliche Mittel der Wirtschaftslenkung*: W. KROMPHARDT. *Die Relativität in der Wirtschaft*: H. ARNDT. *Die deutsche Aussenhandelspolitik von 1879 bis 1948*: H. RITTERSHAUSEN.

Europa-Archiv.

DECEMBER 1948. *Der erste Jahresplan für die Wiedergesundung Europas. Die Verbrauchs-güterwirtschaft in der Sowjetunion.*

JANUARY 1949. *Die Vorgeschichte des Brüsseler Fünfmächtepaktes. Die wirtschaftlichen Aussichten der Marshallplan-Länder für 1949. Das intereuropäische Verrechnungs- und Zahlungsabkommen.*

FEBRUARY 5, 1949. *Föderation oder Kooperation. Wahlgesetze und Wählerstruktur in Frankreich. Der verkehrswirtschaftliche Zusammenhang Europas. Die wirtschaftliche Zukunft Deutschlands.*

FEBRUARY 20, 1949. *Völkerrecht und internationale Ordnung. Wahlgesetze und Wählerstruktur in Frankreich. Die überschüssigen Arbeitskräfte in Westeuropa. Der Aussenhandel der sowjetischen Zone Deutschlands auf dem Wege zur vollen Verstaatlichung. Die britischen Schiffsverluste im Zweiten Weltkrieg Produktionsstatistik für die industrielle Erzeugung des Vereinigten Wirtschaftsgebietes 1946–48.*

Ekonomisk Tidskrift.

VOL. L, NO. 3, SEPTEMBER 1948. *A Suggested Statistical Measurement of Bankers' Liquidity Preference*: K. PHILIP. Professor Kjeld Philip makes an ingenious attempt to verify Keynes' liquidity preference theory empirically by examining the effect of German credit expansion during the occupation of Denmark on the banks' cash holdings. The statistical data comprised: (*a*) the rate of interest as shown by the yield of a leading 4% gilt-edged security and (*b*) the quantity of money measured in 1935 crowns (by dividing by the retail-price index). The values found at the end of each month in the period 1939–47 are plotted on a

diagram, in which quantity of money is measured on the horizontal axis and the rate of interest on the vertical. The result is a well-defined downward-sloping curve which begins by falling almost vertically from 5·6 to 5·0% and then flattens out till around 4·2–4·0% it runs almost parallel to the money axis. The various reasons for holding cash are reduced to two, the transactions and speculative motives; a simple method is devised for finding the approximate proportion of the money supply absorbed by the speculative motive. This is then plotted on a separate diagram. When the rate of interest was between 5·6 and 5·2% no money was held for speculation: the curve becomes parallel to the money axis at 4% which Danes had been taught by experience to regard as a minimum. Peace optimism in 1943 expressed itself in a heightened demand for money, as the Danes expected liberation to send the rate of interest up to between 4·50 and 5·0%. The tremendous battles of Stalingrad and El Alamein had their ripples in occupied Denmark in the form of extreme liquidity preference ! In putting forward his statistical essay as confirmation of the Keynesian theory, Professor Philip is careful to consider objections that might reasonably be made. *Inflation Analysis and Economic Theory*: ERIK LUNDBERG. In this long and closely argued article, Dr. Lundberg appraises recent attempts to use the Keynesian system to explain the post-war inflationary gap and points out the limitations of the method. He begins with a familiar piece of Swedish scepticism: how can figures of national income and expenditure (*ex post* quantities) contribute to an *explanation* of a dynamic process? There are dangers, for example, in relying on figures of total changes in stocks, when the significant data are the increase in certain stages of production and the decrease in others. In taking the social accounting figures for 1947, one might suggest the balance of payments as an indicator of disequilibrium; but what are the " equilibrium relations " ? Equations may be used to show that an adverse foreign balance is identical with the excess of current domestic investment over saving; but these equations are not enough to justify unequivocal policy recommendations. Then again the course of profits might be the criterion; and here Dr. Lundberg suggests that Keynes' treatment of saving and investment in *The Treatise* is in some ways a more fruitful way of analysing inflation than the method of *The General Theory*—partly no doubt because in 1930 Keynes was interested in price-level problems. The distinction between income inflation and profit inflation is a recurrent theme in current Swedish debates on the subject. Dr. Lundberg goes on to summarise the formulation of the inflationary gap given by Klein in the *Keynesian Revolution* and set out in the usual diagram. He uses the construction to show the effect of a decline in productivity on an economy in full employment: the consequent lack of balance is expressed in terms of a maladjustment between investment and saving. The current inflation in Sweden is an illustration of the thesis that a menacing decline in productivity contains quite as much inflation dynamite as an increase in demand following a rise in consumption and investment. The author concludes that the much-discussed Keynesian models are not yet a satisfactory guide for policy makers. He thinks there is more to be got out of the modest formulations of *The Treatise* plus the Stockholm School's approach than out of the ambitious constructions of *The General Theory*. At the end of the war it was of some importance to policy makers to know whether the crisis was to be expected in 1946 or in 1951 ! If current theory is to be fruitful, it must break up the total concepts, Investment and Saving, into significant parts, *e.g.*, public saving and individual income recipients' saving, imports and exports, etc. Moreover, little progress will be made until we arrive at a more satisfactory explanation of the causal significance of changes in the wage level. We should stop playing with *total categories* and turn again to examine the mechanism of economic adjustment in detail. It is easy to over-estimate the light which manipulation of statistics of social accounting can throw on the real working of the economic system. Intensive partial analysis on the classical model is now needed in order to

supplement the Keynesian theory and make it a more reliable instrument.

VOL. L, No. 4, DECEMBER 1948. *The Liquidity Rules of the Banking System :* B. KRAGH. *Econometric Methods :* A. A. SVENDSEN. This is based on a paper read at the Nordic Conference of Young Economists at Uppsala in June 1948. After an introduction describing the origin and evolution of econometrics, the author summarises a model in the field of agricultural economics. *The British Debate on Planning :* G. CEDERWALL. This is a review of the contributions of Professors Jewkes, Robbins and Meade, Sir Oliver Franks, and Mr. Harrod. The author is not impressed by Professor Jewkes' *Ordeal by Planning :* the indictment is too extravagent to be convincing. Instead of being a careful analysis of planning in the context of post-war facts, the book is just a lively polemic. The argument at several points is weak and the quotations carefully hand-picked. After summarising Sir Oliver Franks' argument, Mr. Cederwall echoes the criticism that nowhere in the book is there an awareness of the function of prices. Professor Robbins' discussion evokes praise for its clarity and reasonableness, while Professor Meade's treatment of financial policy and the balance of payments is regarded as the most important part of his book. Mr. Harrod's thesis is criticised on the ground that it tends to overlook the long-run importance of maintaining investment now. The review ends with a comparison between the post-war problems of Sweden and those of Britain, noting that Sweden during the War as well as at present has less controls than in this country. Questions of monetary policy have been less prominent in Swedish discussions. Both English and Swedish economists are agreed on one thing: that the freeing of the price mechanism presupposes that effective demand is maintained at the *appropriate* level, *i.e.*, not so high as to generate inflation and not so low as to bring about deflation and mass unemployment.

Skandinaviska Banken Aktiebolag.

JANUARY 1949. *The Problem of the "Dollar Shortage" :* P. JACOBSSON. *Tonnage and Transports after the War :* I. HÖGBOM. *The Commercial Banks and the Interest Policy. Bills Protested and the Economic Situation. The Economic Situation during the Fourth Quarter of 1948.*

Index.

DECEMBER 1948. *Economic Survey.* SEPTEMBER–NOVEMBER 1948.

Økonomi og Politik.

JUNE–SEPTEMBER 1948. *Omvaeltningen i Fransk Indokina :* E. RESKE-NIELSEN. *Den nationaliserde kulindustri i Storbritannien :* H. BREMS. *De internationale bestræbelser for en friere verdenshandel :* H. S. LARSEN. *Hovedtrekk av den økonomiske utviklung i Norge etter krigen :* M. TUVENG. *Den internationale økonomiske situation : Den økonomiske udvikling i Danmark. Politisk Kronik.*

Ekonomiska Samfundets Tidskrift.

VOL. 1, No. 4, 1948. *Kreditpolitik och inflation :* E. BROWALDH. *Aktuella problem i passagerartrafiken mellan Finland och Sverige :* H. RAMSAY. *Inkomstens fördelning i Finland :* G. FOUGSTEDT.

Revista Brasileira de Economia.

JUNE 1948. *Contribuições dos "Inquéritos Econômicos para o conhecimento da economia brasileira :* G. MORTARA. *Indices de Preços no Brasil :* O. G. DE BULHÕES. *Alterações no Suprimento Monetário Brasileiro, desde 1939 :* E. S. LYNCH and N. B. PARKER.

SEPTEMBER 1948. *A expansão de crédito no sistema bancário brasileiro :* J. KINGSTON. *Alguns aspectos econômicos do Programma de Reperação da Europa :* G. HABERLER. *A política de discriminação no comércio internacional :* R. HINSHAW.

DECEMBER 1948. *Balanço de Pagamentos do Brasil :* G. A. PÉGURIER. *Fortuna Nacional e Renda Nacional :* R. LEWINSOHN. *Banco Central.*

Obzor Národohospodářský. (*All contributions are written in Czech and each issue of the journal contains also a review of current economic conditions in Czechoslovakia.*)

NO. 10, JUNE 1948. *The Polish banking system :* M. ORLOWSKI. *Foreign trade in 1937 and 1947 :* Z. FAFL. *The second stage of nationalization :* J. BERÁK. *1848 in our economy :* A. PIMPER.
NO. 1, OCTOBER 1948. *The financial controls in an economic plan :* J. NEBESÁŘ. *The importance of Latin-American markets :* K. HUDEC.
NOS. 2–3, NOVEMBER 1948. *Structural changes in our economy :* K. ŠTASTNÝ. *The importance of capital formation in a planned economy :* J. OLIVA. *The reconstruction of savings banks in Czechoslovakia :* V. VESELÝ. *The problem of discriminating exchange rates :* M. HORNA. *The importance of Latin-American markets (continued) :* K. HUDEC. *The development of prices on the world markets of raw materials and food-stuffs :* J. SOMMER. *The valuation of administrative labour :* B. BORGES.
NO. 4, DECEMBER 1948. *Prices, incomes and taxes in a planned economy :* K. ROZSYPAL. *The financial planning of an enterprise :* J. ZIMMER. *The mobilization of labour :* K. KARÁSEK. *The dynamics of foreign trade :* R. ŠIMÁČEK.

Magyar Statisztikai Szemla (*Hungarian text, French summaries.*)

JANUARY–JUNE 1948. *The statistical construction of the Hungarian Three Year Plan :* B. GORACZ. *Industrial productivity :* K. KADAS. *Fluctuations in industrial production in 1947 and in the first nine months of the Three Year Plan :* Z. SZALAY. *The Reconstruction of communciations :* L. CHIMESSY (in Hungarian only). *Enquiry into domestic expenditure among Budapest households :* G. MARCZELL. *Preliminary conclusions on the movements of population in Hungary in 1947.* A. BAROCSI. *Economic planning and statistics :* R. THEISS.

Magyar-Szovjet Közgasdasági Szemle (*Hungarian and Russian text.*)

NO. 10, 1948. *The standard of living and the National Income :* F. ZALA. *Planning, accounting and the cost of production in Soviet enterprises. The new Soviet Hungarian commercial agreements :* S. RONAI.

Gazdaság (*Hungarian text.*)

JANUARY 1949. *The theory of Soviet statistics :* G. NADOR. *The development of the Hungarian standard of living :* F. ZALA. *Hungarian industrial reorganisation :* J. WILCSEK. *Uniform terminology : a prime requirement of socialist industrial statistics :* L. GAL.

Journal of the Hungarian Sociographical Institute (*Hungarian text, English summaries.*)

VOL. IV, NO. 1. 1948. *Sidney and Beatrice Webb :* S. KRISZTICS. *New smallholders in Baranya :* J. KOLTA. *Sociographical studies of Máriagyüd:* T. NADOR; *and of Kövágózöllös :* J. NEBECZ.

Gospoparka Planowa (*Polish text.*)

DECEMBER 1948. *Bank reform :* L. MAKOWSKI. *Methods of industrial and financial planning for 1949 :* B. BLASS. *Taxation reform :* L. KUROWSKI.

Probleme Economice (*Rumanian text.*)

NOS. 5–6, OCTOBER 1948. *New prospects in State trading :* E. VINEA. *Planning in the Soviet Economy :* S. ZEIGHER. *Statistics and planning :* V. TREBICI.

Voprosi Ekonomiki (*Russian text.*)

NO. 8, DECEMBER 1948. *Operating profits in Industrial Enterprises :* P. VLADIMIROV (This article surveys a wider field of the profit and price

structure than the title implies). *Monopoly prices and costs of production*: V. MOTILEV. *American economists in the service of monopolies*: I. BLUMIN. *Socialist economics in the writings of Stalin, 1921–25*: I. GLADKOV.

Wiadomości Narodowego Banko Polskiego (Polish text.)

NO. 12, DECEMBER 1948. *Bank control of private undertakings*: S. KRZEMIŃSKI. *The new system of financial investment*: K. SECOMSKI.

The Yenching Journal of Social Studies.

VOL. IV, NO. 1. *A Comparison between Chinese and European Feudal Institutions*: CH'I SSU-HO. *China's Northern Frontiers: historical background*: AGNES FANG-CHIH CHEN. *The Apprentices in Chengtu during and after the War*: LIAO T'AI-CH'U. *Language Forms and Thought Forms*: LUH CHIH-WEI. *P'ing-chaio-tsun as a Social Laboratory*: CHAO CH'ENG-HSIN. *Adjusting Human Relationships through Social Habits*: L. C. PORTER.

NEW BOOKS.

British.

ALLEN (R. G. D.). Statistics for Economists. London: Hutchinson, 1949. $7\frac{1}{2}''$. Pp. vii + 216. 7*s*. 6*d*.

[To be reviewed.]

ASPINALL (A.). Politics and the Press, *c*. 1780–1850. London: Home and van Thal, 1949. $8\frac{1}{2}''$. Pp. xv + 511. 42*s*.

[To be reviewed.]

ASPINALL (A.). The Early English Trade Unions. Documents from the Home Office Papers in the Public Record Office. London: Batchworth Press, 1949. $8\frac{1}{2}''$. Pp. xxxi + 410. 30*s*.

[To be reviewed.]

ASSOCIATION OF CERTIFIED AND CORPORATE ACCOUNTANTS. LIBRARY AND PUBLICATIONS COMMITTEE. Working Party Reports, some accounting and economic aspects. London: Association of Certified and Corporate Accountants, 1948. $8\frac{1}{2}''$. Pp. 72. 2*s*.

[This pamphlet approaches the Working Party Reports from the accounting aspect. It gives a short summary of each report with special emphasis on those features which are likely to impose new responsibilities on accountants. The whole is prefaced by an introduction which draws attention to the proposed work of the Development Councils, and their need for returns of information derived from accounts, as well as for levies for research. It also draws attention to the stress laid by several of the Reports on the need for improvement of costing methods as an important means of improving efficiency.]

BAREAU (P.). The Sterling Area. British Commonwealth Affairs, No. 3. London: Longmans Green, 1948. $8\frac{1}{2}''$. Pp. 16. 1*s*.

[Mr. Bareau has succeeded in giving, what has been greatly needed, a short, clear and accurate account of the working of the sterling area. His statement of it brings out the war-time transition from almost complete informality to a definition of the area covered as an element in exchange control, the complete autonomy of the individual members in applying generally agreed policies, the emergence of the central pool of hard currencies held in London on which each country was able to draw as necessary, the growth of sterling balances, and the implications of the American loan. Mr. Bareau ends by trying to see the future of the sterling area; he suggests that some immobilisation of the balances may be a condition of freedom of payments for current commercial operations; but he regards the future of the system as depending on the position of sterling itself as a

world currency and therefore on a solution of the British balance-of-payments problems.]

Bray (F. Sewell) and Dawe (C. V.). Farm Accounts. Oxford University Press (Incorporated Accountants' Research Committee), 1948. 8½". Pp. ix + 149. 15*s.*

[To be reviewed.]

Capital. Diamond Jubilee Number, 1888–1948. Calcutta, 1948. 16½". Pp. 150. Rs. 5.

[A Diamond Jubilee number which contains a great deal of material about Indian industries and commerce. The majority of the contributors are Indian experts or British residents with long Indian experience. There is one interesting exception : Mr. Oscar Hobson contributes a very interesting note on the sterling balances.]

Carter (C. F.), Reddaway (W. B.), and Stone (Richard). The Measurement of Production Movements. (University of Cambridge, Department of Applied Economics, Monograph I.) Cambridge : University Press, 1948. 9½". Pp. vii + 135. 12*s.* 6*d.*

[Reviewed in this issue.]

Chatham House. Annual Report of the Council, 1947–1948. London : Royal Institute of International Affairs, 1948. 9". Pp. 87. 1*s.*

[This annual report contains short summaries of work completed or in progress at Chatham House. Much of it is in the middle ground between politics and economics.]

John Harold Clapham, 1873–1946. Fellow, Tutor and Vice-Provost. A Memoir prepared by direction of the Council of King's College, Cambridge. Cambridge University Press for King's College, 1949. 8½". Pp. 28. 3*s.* 6*d.* (Plus 2*d.* postage if ordered from the College Office.)

[This memoir of Prof. Clapham forms a companion to that of Lord Keynes, noted elsewhere in this issue. As in the case of the other memoir, it is from numerous pens, but all the writers were intimate with Prof. Clapham in his life in Cambridge and in his college. It reprints the charming obituary notice that Prof. Trevelyan wrote for the Economic Journal as well as tributes by Prof. Pigou and others. It contains also a photograph of the portrait by James Gunn which hangs in the hall of King's College. Copies are obtainable in the same way as those of the memoir of Lord Keynes.]

Clark (J. M.). Alternative to Serfdom. Oxford : Basil Blackwell, 1948. 8½". Pp. xii + 153 + vi. 8*s.* 6*d.*

[To be reviewed.]

Clay (Harold). Industrial Democracy; its development and significance to the individual. Barnett House Papers, No. 30. London : Oxford University Press, 1949. 8½". Pp. 18. 2*s.* 6*d.*

[Mr. Harold Clay starts from the Webbs and the broad concept of industrial democracy and goes on to trade-union growth, wage negotiation and joint consultation, and the difficulties, with huge national unions, of keeping the individual worker fully aware of all that is being done in his name and of giving him a sense of responsibility for it. He ends by discussing nationalisation and the possibilities of greater industrial democracy in nationalised industries. He states his conviction that nationalised industries have a great opportunity to bring about a revival of confidence in industrial relations.]

Current Financial Problems and the City of London. London : Europa Publications (Institute of Bankers), 1949. 8½". Pp. 219. 15*s.*

[To be reviewed.]

DAS GUPTA (B.). Provincial Taxation under Autonomy. Calcutta and London: Oxford University Press, 1948. 8½″. Pp. viii + 486. Rs. 20.

[This is a study of the working of the system of provincial autonomy in the field of taxation from 1937, when it was first introduced, to 1942, which was the last reasonably normal year of its operation. It begins in Part I with a study of the background both of the theory of taxation and of the Indian Constitution. It goes on in Part II to "taxes on things," covering both goods and services. Part III deals with taxes on land—principally, of course, the land revenue. Part IV covers taxes on persons, including agricultural income tax, and taxes on professions, callings and employments. Part V is concerned with the issues which emerge—cost of collection, co-ordination and general tax policy. The book is a straightforward and thorough account of the experience of those years which will be of value to Indian administrators as well as economists.]

EINZIG (P.). Primitive Money in its Ethnological, Historical and Economic Aspects. London: Eyre and Spottiswoode, 1949. 8½″. Pp. xii + 517. 25*s*.

[To be reviewed.]

FLORENCE (P. SARGANT). Labour. London: Hutchinson, 1949. 7″. Pp. 230. 7*s*. 6*d*.

[To be reviewed.]

GADGIL (D. R.). Some Observations on the Draft Constitution. Poona: Gokhale Institute of Politics and Economics, 1948. 8″. Pp. 112. 4*s*. 6*d*.

[A commentary on the Draft Constitution of India. It begins by discussing the anomalous position of the Indian States. It goes on to the broader issues of fundamental rights, the responsibilities of the President, Governors, and Second Chambers, the relation between the Union and the States, finance, emergency powers, minorities and methods of amendment.]

GANDHI (M. P.) (Ed.). The Indian Cotton Textile Industry (1947–1948 annual). Bombay: Gandhi and Co., 1948. 10″. Pp. xlv + 184 + xxviii. Rs. 6.

[This annual survey of the Indian cotton industry covers the period down to September 1948.]

GANDHI (M. P.). A Monograph on Handloom Weaving Industry in India, 1948. (Its past, present and future). Bombay: Gandhi and Co., 1948. 9½″. Pp. 80. Re. 1–8–0.

[This is a new issue of an annual survey of the Indian hand-loom industry.]

GHOSH (SATIS CHANDRA). The Economic and Commercial Publications of the Post-Graduate Teachers of Calcutta University. Calcutta University, 1948. 8½″. Pp. 80.

[This includes a list of all those who have been teachers in the post-graduate departments of economics since 1917, followed by a list of their publications and public activities. No reader can fail to be impressed by the immense productivity of this group of teachers. There is also included a book-list showing the recommended reading for the M.A. Degree and a history of the teaching of economics in the University of Calcutta.]

HALL (N. F.). Winter Proceedings No. 1. The Staff College in Training for Management. London: British Institute of Management, 1949. 9″. Pp. 27. 2*s*. 6*d*.

[Mr. Noel Hall, Principal of the Administrative Staff College, here surveys the results of the first session of his College, the basic ideas underlying it, the courses of studies adopted, their content and method, the optimum size of the College and the length of courses. He ends with a plea that ability to discharge the executive function cannot be created in a hurry and by short-cut methods. It requires detachment and the leisure to see one's own organisation from outside. It is there that we shall get the quickening of the sense of responsibility needed if the

nation is to recover its capacity for productive corporate effort. The paper is followed by a summary of the subsequent discussion to which many distinguished industrialists contributed.]

HICKS (J. R.). The Problem of Budgetary Reform. Oxford: Clarendon Press, 1948. 7″. Pp. 95. 5*s*.

[To be reviewed.]

HIRST (F. W.). The Stock Exchange. 4th edition. London: Oxford University Press, 1948. 6″. Pp. 224. 5*s*.

[A new, fourth, edition. It contains a final chapter on the London Stock Exchange, 1931–46, by a Member of the House.]

HOBSON (J. W.) and HENRY (H.) (Ed.) in collaboration with BROWNE (G.). The Rural Market. A compilation of facts relating to the agricultural industry, rural standards of living and purchasing habits. London: Hulton Press, 1948. 10½″. Pp. 132. 21*s*.

[To be reviewed.]

HURCOMB (SIR CYRIL). The Organization of British Transport. London: British Transport Commission, 1948. 8½″. Pp. 25.

[A paper by the Chairman of the British Transport Commission outlining the organisation of British Transport. It is based on two addresses, the first to Ashridge College, the second to the Railway Students' Association.]

INNIS (H. A.). The Press, a neglected factor in the economic history of the twentieth century. London: Oxford University Press, 1949. 7″. Pp. 48. 1*s*. 6*d*.

[In this Stamp Memorial Lecture Prof. Innis first describes the technical advances by which the cheap newspaper became possible and then the types of journalism that it has produced. He comes ultimately to the effects on the social sciences of new methods of communication—the growth of popular writing and the decline of the influence of the learned volume. This leads him to a number of very provocative *obiter dicta* both about individual economic writers and about the trends of economics. This lecture has the greatest virtue of a lecture—that it will stimulate thought and argument.]

JELLINEK (F.). West of the Decline. London: Alliance Press, 1948. 8″. Pp. 360. 12*s*. 6*d*.

[This is another of those books which put with pretentious Germanic scholarship the Continental Liberal case against Socialism and Communism. The Spenglerian *Allwisserei* of the title is unsupported by the text: the author's economic case against Socialism as promoting inflationary philosophies is vitiated by the scurrility of his invective against socialist economists; and his solution to the spiritual problem of Communism—a voluntary "Homogeneous State" of like-minded men—commands little respect for his grasp of political sociology. The ingenious epigrams which interlard the tortuous style hardly repay the effort of following the argument.]

John Maynard Keynes, 1883–1946, Fellow and Bursar. A Memoir prepared by direction of the Council of King's College, Cambridge. Cambridge University Press for King's College, 1949. 8½″. Pp. 42. 3*s*. 6*d*. (Plus 2*d*. postage if ordered from the College Office.)

[This charming and beautiful memoir was prepared by the direction of the Council of King's College, Cambridge, of which Lord Keynes was Fellow and Bursar for many years. It contains tributes to many facets of Keynes' life by Kingsmen who knew him intimately. They include the Provost, Prof. Pigou, Mr. C. R. Fay and Mr. Proctor (who writes of his work in the Treasury) as well as several others. It has also a very characteristic portrait of Lord Keynes, taken at Washington in 1945. Copies may be obtained either through booksellers, or in case of difficulty from the College Office, King's College, Cambridge.]

LASKI (H. J.). The American Democracy. A commentary and an interpretation. London: Allen and Unwin, 1949, 9½″. Pp. x + 785. 25*s*.

[To be reviewed.]

LEVY (H.). England and Germany, affinity and contrast. Leigh-on-Sea: Thames Bank Publishing Company, 1949. 8″. Pp. v + 167. 7*s*. 6*d*.

[To be reviewed.]

LEWIS (J. S.). Partnership for All. London: Kerr-Cros Publishing Co. (John Lewis Partnership), 1948. 8½″. Pp. xviii + 532. 12*s*. 6*d*.

[To be reviewed.]

LOGAN (H. A.) and INMAN (M. K.). A Social Approach to Economics. Second edition, revised and enlarged. Toronto: University Press, 1948. 9″. Pp. xiv + 757.

[This is a new, revised, edition of a book which was reviewed by Mr. Guillebaud in the issue of December 1948. Two new chapters have been added dealing with national income and the problem of full employment. Various chapters have been largely re-written. A section on Socialism has been added. In other ways the book has been brought up-to-date.]

LONDON COUNTY COUNCIL. Statistical Abstract for London, 1937–1946, with 1947 figures where available. Vol. XXX. London: London County Council, 1948. 10″. Pp. 97. 5*s*.

[This first post-war abstract covers the years 1937 to 1946 with 1947 figures added where possible. It contains an immense amount of statistical information in the fields of health and vital statistics, area, population and rateable value, education and public-utility services.]

OGILVIE (SIR FREDERICK W.). The Importance of Travel as a Factor in International Trade. London: British Travel Association, 1948. 8½″. Pp. 15.

[A lecture delivered under the auspices of the International Union of Official Travel Organisations. Sir Frederick Ogilvie surveys the possibilities of tourist earnings as a contribution to our balance of payments.]

PHADKE (N. S.). Birth-Pangs of New Kashmir. Bombay: Hind Kitabs, 1948. 7″. Pp. 34. As. 8.

[This pamphlet was written in the summer of 1948 when fighting was still in progress in Kashmir. It describes in vigorous language, from the point of view of an Indian, the origins and early course of the conflict with Pakistan.]

PIGOU (A. C.). The Veil of Money. London: Macmillan, 1949. 8″. Pp. viii + 150. 8*s*. 6*d*.

[To be reviewed.]

PUNEKAR (S. D.). Trade Unionism in India. A study in industrial democracy. Bombay: New Book Co., 1948. 8½″. Pp. xv + 407. Rs. 17–8.

[The author of this study is research officer of the Ministry of Labour of the Government of India. No authoritative study was previously available on this important subject. He traces the history of trade unionism and the slow development of freedom of associations with chief emphasis on the period from 1919 to the present. It is not easy to assess the present strength of the trade unions. So far as can be judged out of some 67 million workers in 1938–40 no more than about 600,000 were members of unions—a little under 1%. This may be compared with about 10% in U.S.A., 33% in the United Kingdom and about 48% in Australia. The author goes on to discuss the methods and functions of unions, the extent of collective bargaining, mutual insurance, as well as problems of organisation and structure.]

RAJ (K. N.). The Monetary Policy of the Reserve Bank of India. Bombay: National Information and Publications. 8½″. Pp. 177. Rs. 12/–1.

[To be reviewed.]

RENOLD (SIR CHARLES). The Nature of Management. Occasional Papers No. 2. London: British Institute of Management, 1949. 9". Pp. 15. 2*s*. 6*d*.

[This is Occasional Paper No. 2 in the same series as that by Mr. Urwick, noted below. Sir Charles Renold's paper is much more deeply concerned with the fundamentals of management, in what one means by management, the relations of the Board to its Managing Director and its executive generally, the functions of management and its organisational structure, the objectives and methods of management, and finally control and accountability. Sir Charles Renold's main thesis is that the purpose of management is action, but action at second-hand by others. From this concept springs his idea of management using a community in order to achieve a purpose.]

REYNOLDS (CLIFTON). A Simple Guide to Big Business. London: Bodley Head, 1949. 8". Pp. ix + 392. 10*s*. 6*d*.

[This book, by the author of *Glory Hill Farm*, utterly defies review or summary. It is best described as a verbal transcript of a lively evening's gossip about big business, ramps, rings, manipulations, mergers, monopolies and machinations generally. It is as unsystematic as an encyclopedia. It is as irresponsible as a back-bench speech. It is as packed with information, possibly inaccurate (no reviewer can hope to check it), as a war-time train with passengers. It gaily traverses the whole straggle of British industries from beef and bacon, through copper, steel and aluminium, soap and margarine, patent medicines and gin, to the dogs, the Opera and the "prep." school. It manages to touch on hundreds of varieties of enterprise which have hitherto eluded the economic text-book. Whether he who reads will be a better man, it would be difficult to say. He will certainly be the gayer and probably the wiser.]

RICH (E. E.) (Ed.). Minutes of the Hudson's Bay Company, 1679–1684, First Part, 1679–1682. With an introduction by G. N. Clark. 1945. Pp. xlvi + 378. Second Part, 1682–1684. 1946. Pp. xlvii + 368. London: Hudson's Bay Record Society. 9½".

[These volumes throw important light on a dark period in the history of the Hudson's Bay Company and make it possible at last to understand the course of development of organisation during the formative years. The problems of establishing a trading organisation concerned with a highly valuable light-bulk article are illustrated in detail in the *minutes* and in the elaborate supporting material of the volume. It is a period in which threats of competition from members of the company and from foreign powers are met and crushed. The editing has been carefully done, though additional notes on the very valuable report by John Nixon, Appendix A (first part), would have been welcome. The work continues in the tradition of the high standing established by Mr. Rich and suggests the need for a comment on the efficiency of the arrangement under which he has worked with the Hudson's Bay Record Society and the Champlain Society. He has been able through the arrangements with the Champlain Society to attract competent scholars and to avoid the pitfalls which surround work done directly under the auspices of a single commercial company, work which inevitably sinks to the level of a select type of advertising and to which competent scholars are not attracted. The Hudson's Bay Company and the Champlain Society are to be congratulated on the success of the arrangement and on the competence of their editor.]

ROAD TRANSPORT EXECUTIVE. Gazetteer of Undertakings acquired to December 31st, 1948. No. 4. London: Road Transport Executive, 1949. 8". Pp. 64.

[A revised schedule of undertakings acquired.]

ROSTAS (L.). Comparative Productivity in British and American Industry. (National Institute of Economic and Social Research, Occasional Papers, No. XIII.) Cambridge: University Press, 1948. 9½". Pp. xxii + 263. 18*s*.

[To be reviewed.]

SCHUMANN (C. G. W.) and SCHEURKOGEL (A. E.). Industrial and Commercial Share Price Indices in South Africa. University of Stellenbosch: Bureau for Economic Research, 1948. 10″. Pp. 97.

[This volume, the first publication of the Bureau of Economic Research of the Faculty of Commerce of the University of Stellenbosch, aims to throw light on the fluctuations of share prices as an indication of economic trends and fluctuations. It gives a number of weighted series covering the period 1910–46. The text is in parallel columns of Afrikaans and English.]

SEERS (D.). Changes in the Cost-of-living and the Distribution of Income since 1938. Oxford: Basil Blackwell (Oxford University Institute of Statistics), 1949. 9½″. Pp. 84. 6s.

[To be reviewed.]

A Social Survey of Singapore. A preliminary study of some aspects of social conditions in the municipal area of Singapore, December 1947. Singapore: Department of Social Welfare, 1948. 8½″. Pp. viii + 165.

[This survey was originally proposed at the end of 1946 because social policy was operating in the dark about the dimensions of many of the problems that had to be tackled. The survey was based on a sample of 5,000 households, representing about one house in thirty. The enumerators were largely drawn from students at Raffles College, the College of Medicine and St. Andrew's School, as well as from the Social Welfare Department of the Government. The information secured, and here published, covered a wide range of information about the size, composition and racial distribution of households, the number of wage earners and their relationship to the head of the house, occupation and its relation to race, duration of settlement and other characteristics, housing and overcrowding, education, and ties with homelands of immigrants.]

SOVANI (N. V.) (Ed.). Reports of the Commodity Prices Board. Poona: Gokhale Institute of Politics and Economics, 1948. 10″. Pp. xv + 238. 15s.

[The Commodity Prices Board was appointed in February 1947 to review the prices of all commodities and advise the Government as to the prices to be fixed for controlled commodities. It was composed of three members, including Mr. Gadgil of the Gokhale Institute. It produced over a short period twelve reports, covering most of the main commodities. In the autumn of 1947 both the President and Mr. Gadgil resigned because their recommendations were overruled with no indication to the Board as to the reasons. Shortly afterwards there was a general move towards decontrol, and the necessity for the Board disappeared. Since the reports were of some interest and their official publication was likely to be long delayed, Mr. Gadgil has induced the Government to permit their publication by the Gokhale Institute.]

SOVANI (N. V.). The Social Survey of Kolhapur City. Part I. Population and Fertility. Poona: Gokhale Institute of Politics and Economics, 1948. 8½″. Pp. 83. 8s.

[This section of the Social Survey of Kolhapur covers population and fertility. It contains much interesting information derived from a questionnaire covering 2,825 women between the ages of thirteen and fifty. It is interesting that an estimate of the net reproduction rate (assuming that life tables for the Bombay Presidency in 1931 can be applied to Kolhapur) comes out at 1·15.]

SUBRAHMANYAM (A. N.). An Enquiry into Economic Theory. (Studies in Economics and Politics, No. 4.). Mysore: Government Branch Press, 1948. 8½″. Pp. viii + 115. Rs. 1/4/–.

[This small study seeks to consider the most recent trends in the theory of economic equilibrium. The author aims to bring into focus the ideas of the chief writers of the last fifteen years, both in England and in America.]

URWICK (L.). A Short Survey of Industrial Management. Occasional Papers No. 1. London: British Institute of Management, 1949. 9". Pp. 31. 2*s.* 6*d.*

[This is the first of a new series of occasional papers to be published by the British Institute of Management. Mr. Urwick has surveyed briefly but effectively the field of scientific management from Babbage and F. W. Taylor to Mary Parker Follett and Elton Mayo. This is a really useful statement of the present state of thought over the whole field of management. But an academic critic may well derive the impression that the subject is still too much an arena of "systems" and slogans and protagonists, and too little a matter of clearly defined issues and rigidly scientific arguments.]

WHITAKER (H.). The Harold Whitaker Collection of County Atlases, Road-Books and Maps presented to the University of Leeds. Leeds: Brotherton Library, 1947. 10". Pp. 143. 10*s.* 6*d.*

[This is a Catalogue of County atlases, road-books and maps presented to the University of Leeds. The principal section contains atlases of the English counties in chronological order from 1579 to 1901.]

American.

BLUM (J.). Noble Landowners and Agriculture in Austria, 1815–1848. A study in the origins of the peasant emancipation of 1848. (Studies in Historical and Political Science, Series LXV, No. 2.) Baltimore: John Hopkins Press, 1947. 9". Pp. 295 + xiv. $4.00.

[This is a study of the origins of the peasant emancipation of 1848 and the part played by noble landowners in effecting the changes. The study is concerned mainly with five of the fifteen lands which made up the Austrian Monarchy of that time. Bohemia, Moravia–Silesia, Lower Austria, Hungary and Galicia. The conclusions are that the noble landowners were leading advocates of agrarian reform, that their principal reason was an economic one, that the underlying causes were a large growth of population, expanding markets for agricultural produce, improved transport and thus an interest in capitalistic agricultural production among the landowners.]

BUEHLER (A. G.). Public Finance. Third edition. New York and London: McGraw-Hill, 1948. 9". Pp. xiii + 740. 30*s.*

[A third edition of a book first published in 1936. It is mainly concerned with the particular problems of the United States, but includes for purposes of comparison a certain amount of information about Great Britain and other countries, as well as many references to the literature of the subject outside the United States. This is a very solid and competent text-book which deserves careful consideration, but it will probably be regarded as a little too much devoted to American problems to be usable as a general text in an English university.]

Business Management Action Against Depression. Danger Signs: some do's and don'ts. Washington: Chamber of Commerce of the U.S.A., 1948. 9". Pp. 16. 20 cents.

[This pamphlet asks questions rather than propounds answers. It lists a series of basic questions and current problems and presents the current statistics. It then prints a series of statistical indicators and invites the reader to indicate for the present and for a year hence whether these will be on the rise, or peak, on the way down or at bottom. The reader is invited to revise his estimates from time to time and compare them with actual performance. The purpose is not wholly clear. Is it to prevent us acquiring an exaggerated faith in our own infallibility? or is it merely to make us think, and so create an intellectual background to our semi-instinctive judgments?]

CLAYTON (W. L.) and Others. Economic Institute on America and the International Trade Organization. Washington: Chamber of Commerce of the United States, 1948. 9". Pp. 101. $1.00.

[This includes addresses by W. L. Clayton, J. Abbink, H. S. Piquat, Clair Wilcox, Arthur Besse, J. L. Coulter and Wilbert Ward delivered at a conference

on America and the International Trade Organisation held in Washington during June 1948. All points of view are represented, and there is a short résumé of the discussions.]

Dieterlen (P.) and Rist (C.). The Monetary Problem of France. New York: King's Crown Press (Carnegie Endowment for International Peace) (London: Geoffrey Cumberlege), 1948. 8½″. Pp. xvii + 98. 14*s*.

[To be reviewed.]

Friedman (L. M.). Pilgrims in a New Land. Philadelphia: Jewish Publication Society of America, 1948. 8″. Pp. xii + 471. $4.00.

[An account of the contribution made by Jews to American development.]

Graham (F. D.). The Cause and Cure of "Dollar Shortage." Essays in International Finance, No. 10. Princeton University: International Finance Section, Department of Economics and Social Institutions, 1949. 9″. Pp. 15.

[Provided that the title of this pamphlet can be forgotten, it is a very stimulating discussion of a very topical problem. The author is convinced that the roots of all our troubles are to be found in fixed exchange rates, fixed at inappropriate levels. "The inherent contradiction between a nostalgic yearning for the fixed exchange rates appropriate to unmanaged gold standards (with national price-levels moving in substantial uniformity) and the modern desire for national monetary independence as a prerequisite to monetary management in the interest of high-level employment (with national price-levels moving in aberrant relationship to one another) is the real explanation not only of the present unbalance in international trade but of the inter-war tendency for the world's gold to move to our shores, of the strong demand abroad for stabilisation loans from this country, and of the 'shortage' of dollars in the outside world when the gold supplies of foreign countries had been more or less exhausted and the United States was no longer inclined towards foreign investment." Mr. Graham would sweep away the whole International Monetary Organisation on the ground that it is preventing the emergence of "substantially automatic international monetary mechanism, persistently working towards equilibrium in the international accounts." This is a case well worth arguing. But the author never goes below the monetary surface into the real underlying causes. He does not pause to ask whether a worsening of the terms of trade can permit the solution of the essential practical problems of the short-term balance of payments of war-shattered countries, which must eat and buy materials on some minimum scale, even if it serves to strengthen the incentives to their long-term adjustments. The realities of "dollar-shortage" must involve the facing of these problems.]

Heaton (Herbert). Economic History of Europe. Revised edition. New York: Harper Bros., 1948. 8″. Pp. xiv + 792.

[To be reviewed.]

Heimann (E.). Freedom and Order. Lessons from the War. New York. Charles Scribner, 1947. 8″. Pp. xiv + 344. $3.00.

[To be reviewed.]

Hopkins (W. S.). Labor in the American Economy. New York and London: McGraw-Hill, 1948. 9″. Pp. xi + 368. 21*s*.

[The purpose of this book is to produce a study of labour problems in the United States inside the limits of a volume which can reasonably be read in connection with a single term's elementary lectures. The author has aimed to exclude vast masses of semi-relevant detail and to ensure that there is a clear thread of argument running through the book. He has also aimed to exclude the sort of theoretical analysis which can reasonably be assumed to be absorbed from courses or reading in economic theory. The book plunges straight into the problems. It begins in Part I with unemployment and the various categories of it that may be distinguished. It goes on next to problems of wage and working conditions. In Part II the methods of collective bargaining, trade unions, employers' associations and employers' weapons are discussed, leading up to

negotiations and agreements and to conciliation and arbitration. Part III covers the public interest and national labour policy. Appendices print the Employment Act of 1946, the Wagner and Taft–Hartley Acts, and the President's Veto Message of the latter.]

HORTON (B. J.), RIPLEY (J.) and SCHNAPPER (M. B.). Dictionary of Modern Economics. A handbook of essential information concerning the basic terms of business, finance, commerce and modern economic society. Washington: Public Affairs Press, 1948. 9″. Pp. ix + 365. $5.00.

[The authors of this dictionary argue in the introduction that the greater complication of economics since Palgrave's *Dictionary of Political Economy* requires that "some effort be made to assemble and co-ordinate—primarily for the layman and incidentally for the college student—reasonably lucid definitions of those terms which cover the economic facts of life." With that strictly limited objective, this dictionary will be of use. But it would be dangerous to challenge comparison with Palgrave. It is made up in the main of short entries of five to ten lines giving a necessarily very summary account of the matter under discussion. It defines but does not as a rule discuss. There is no indication (as in Palgrave) of the literature to which a student might go for further information. The individual entries are on the whole accurate and clear, but they include a certain number in which the statement is, at the least, open to doubt.]

HULTGREN (T.). American Transportation in Prosperity and Depression. New York: National Bureau of Economic Research, 1949. 9″. Pp. xxxiii + 397. $5.00.

[This volume forms the third in the National Bureau Series of *Studies in Business Cycles*. It does not attempt to carry the examination of the problem beyond 1938. Its main purpose is to consider the cyclical changes in input and output, the variations of employment and their relations to fluctuations of traffic, the relations of the cyclical movements to the secular changes that were affecting both the volume of goods to be carried and the competition of road with rail. This is an important and authoritative monograph which should be studied both by those concerned with trade cycles in the U.S. and by those interested in the economics of transport.]

Inheritance and Estate Taxes in Kentucky. Department of Revenue, Commonwealth of Kentucky, Special Report No. 6. Lexington, Kentucky: Bureau of Business Research, 1947. 9″. Pp. 104.

[This study was prepared for the Department of Revenue of the State of Kentucky by Prof. E. Z. Palmer, late of the Department of Economics of the University of Kentucky, Prof. R. Sullivan, now Professor in the same Department, and Mr. Ellis Sulton former Director of the Division of Income Taxation.]

KILLINGSWORTH (C. C.). State Labor Relations Acts. A study of public policy. Chicago University Press (Cambridge University Press), 1949. 9″. Pp. x + 328. 22*s*. 6*d*.

[This book deals with the content and policy of the legislation regulating labour relations in the separate States of the U.S.A. In the process of so doing, it makes more than incidental reference to the corresponding provisions of Federal legislation. The reasons which the author gives for making a systematic study of State legislation are that there are in the U.S.A. some 13 million workers in industries which the Federal legislation rarely touches, that State legislation may provide a field in which innovations and deviations from prevailing policies and methods can be tested before enactment of Federal legislation, and that State legislation makes possible a comparative analysis which clarifies some general principles of labour-relations policy. The author seeks to show that all labour-relations legislation, State and Federal, must fall into one of two broad categories—protective, as it protects the right to organise and thereby encourages collective bargaining, or restrictive, as it imposes obstacles in the way of trade-union organising campaigns and thereby, in effect, whatever may be its intention, hinders collective bargaining. The key to public policy in labour relations, he concludes, therefore lies in the answer, which he himself does not attempt to supply, to the question whether it is collective bargaining or some alternative to it that best furthers the public interest. Such an approach may seem an over-simplification of the complex considerations affecting policy in the field of

industrial relations. The real value of the book lies in its clear exposition of the main features of the State legislation which plays a not unimportant part in the regulation of labour relations in the U.S.A. and of which so much less is known than of the Federal legislation.]

KIMBALL (JANET). The Economic Doctrines of John Gray, 1799–1883. Washington, D.C.: Catholic University of America Press, 1948. 9″. Pp. viii + 162.

[This is an excellent example of the short monograph which engagingly says all that there is to be said about a figure of secondary importance, relating the discussion to the trends and controversies of his time. John Gray is a somewhat enigmatic and rather shadowy figure. The *Lecture on Human Happiness*, his best-known work, was written when he was twenty-six. In the *Social System*, written when he was thirty-two, he is already much more subdued. His *Lectures on the Nature and Use of Money*, written when he was forty-nine, marks his last appearance as an author and controversialist, although he lived for a further period of thirty-five years in prosperous silence. He appears to have been a striking example of the class of revolutionary whose fervour is gradually sapped by worldly success. It is as one of the Ricardian Socialists that Gray occupies a certain place in the history of Socialism. One of the most useful chapters in this thesis is that in which the author summarises Gray's lines of attack on the Classical School, and the grounds of his repudiation of *laissez faire* and of competition. Here already the world is to be run by regulation. In dealing with the constructive ideas of Gray, the author rightly emphasises how impractical his projects were, and of how little knowledge of ordinary human nature and psychology he was possessed. There are interesting chapters relating Gray to his contemporaries and successors, both in England and on the Continent.]

LESTER (R.) and SHISTER (J.) (Ed.). Insights into Labor Issues. New York and London: Macmillan Company, 1948. 8½″. Pp. x + 368. 20*s*.

[This book consists of thirteen essays in the writing of which seventeen authors, all but two of whom hold academic appointments (mostly as associate or assistant professors) in the U.S.A., have participated. Some of the essays deal with practical problems arising out of the relations between management and labour, some with the theory of wages, some with matters affecting only the present situation in the U.S.A., some with more general questions of wider interest. The editors state that no attempt has been made to co-ordinate the essays or to present a common point of view, and it is difficult to see how, with such a variety of subjects, any such attempt could have been made. If, however, one seeks a theme common to the majority of the essays, it can perhaps be found in an attempt to grapple with what for American industry are comparatively new problems—the recent growth of trade-union organisation and the still more recent tendency to widen the scope of collective bargaining. The growth of trade unions has not only increased the amount of collective bargaining, but, in some industries and some areas, has altered its nature so that the former American pattern of collective bargaining between an individual employer and a trade union is in some cases being displaced by bargaining on behalf of a whole industry within a particular area. This is particularly true of the San Francisco area, where industry-wide collective bargaining has been adopted, partly for reasons peculiar to the circumstances there prevailing and partly in conscious imitation of British and Swedish methods. It is with problems of transition such as these—their repercussions on the theory and practice of wages and industrial relations —that many of the essays deal.]

LINTNER (J.). Mutual Savings Banks in the Savings and Mortgage Markets. Boston: Harvard University, Graduate School of Business Administration, 1948. 8″. Pp. 559. $6.50.

[This is an exhaustive and definitive monograph which analyses with great care the practice and policies of mutual savings banks. While their position is strong and their importance in the accumulation of savings is great, they have been declining in recent years relatively to other agencies, particularly life insurance. The author considers how their services may be improved, including the development of life-insurance business. He goes on to examine the investment policies and gives the results of a large sample investigation of more than 10,000 individual mortgage loans made by Massachusetts mutual savings banks

since 1918. On the basis of this investigation he is able to make suggestions for the reduction of risks in such business.]

LOUCKS (W. N.) and HOOT (J. W.). Comparative Economic Systems. Third edition. New York : Harper Bros., 1948. 9″. Pp. xv + 836.

[To be reviewed.]

METZLER (L. A.) and Others. Income, Employment and Public Policy. Essays in Honor of Alvin H. Hansen. New York : W. W. Norton, 1948; and London : Allen and Unwin, 1949. 8½″. Pp. viii + 379. 21*s.*

[To be reviewed.]

MORGAN (T.). Hawaii, a Century of Economic Change, 1778-1876. Cambridge, Mass. : Harvard University Press (London : Geoffrey Cumberlege), 1948. 8½″. Pp. xi + 260. 22*s.*

[This is a very thorough and scholarly study of Hawaii. It begins with a description of the status of the Hawaiians in 1778, tracing their original colonisation, the population, land tenure and organisation of production at that time. It goes on to describe the decay of feudalism over the period 1778–1844, showing the results of the early fur and sandalwood trade, the social effects of whaling, the coming of the missionaries, the gradual introduction of new techniques and of money, and the collapse of native moral. There follows a more detailed study of the period 1845–76 with land reform, the peak and subsequent collapse of whaling, the Californian gold rush with sudden new demands for agricultural products, and the growth of new industries, chief among which was sugar. The author manages to combine a readable and fascinating account of the developments over the century with a wealth of statistical detail.]

MOULTON (H. G.). Economic Systems. Free Enterprise, Communism, Socialism, Hybrids : regulations compatible with private enterprise. Washington : Brookings Institution, 1948. 8″. Pp. 55. 50 cents.

[This pamphlet forms Chapter VI of the volume entitled *Controlling Factors in Economic Development* by the same author, published by the Brookings Institution.]

NATIONAL PLANNING ASSOCIATION. Planning Pamphlets. No. 65. *Can Farmers Afford to Live Better?* By L. Nelson. Washington D.C. : National Planning Association, 1948. 7½″. Pp. viii + 32. 50 cents.

[The author of this pamphlet argues that it is in the national interest, as well as in that of the farmers themselves, that they should use their good incomes of the present to raise living standards, improve conditions, and make rural life more attractive to the younger generation so far as supplies of goods permit, or failing that to save temporarily in order to buy similar goods later.]

PEGRUM (D. F.). The Regulation of Industry. Chicago : Richard Irwin, 1949. 9″. Pp. xii + 497. $4.75.

[To be reviewed.]

A Program for Community Anti-Communist Action. Washington : Chamber of Commerce of the United States, 1948. 9″. Pp. 56. 50 cents.

[The preface of this pamphlet says that its purpose is to frustrate the latest move of the American Communists : "having found new resistance at top levels —in Government, unions, the Press and other means of communication—[they] have received instructions to work more directly on the masses of the people at the local level." The Chamber of Commerce of the United States is determined to block this.]

ROBINSON (J.) and Others. Were the Minorities Treaties a Failure? New York : Institute of Jewish Affairs, 1943. 9″. Pp. xvi + 349. $2.00.

[An examination of the treaties made after 1914–18 with the smaller states of Eastern Europe and the Middle East.]

SANDERS (T. H.). Company Annual Reports to Stockholders, Employees, and the Public. Boston: Harvard Business School, 1949. 8″. Pp. xiii + 338. $3.75.

[To be reviewed.]

SPIEGEL (H. W.). The Brazilian Economy: chronic inflation and sporadic industrialization. Philadelphia: Blakiston Company, 1949. 8½″. Pp. xiii + 246. $4.50.

[This study of the Brazilian economy begins by discussing the national income, prices and finances of the country. It goes on to its population and man-power resources, its foreign trade and foreign loans and investment. It ends with two groups of chapters discussing the agricultural problems and the industrial development.]

TAYLOR (P. E.). The Economics of Public Finance. New York and London: Macmillan, 1948. 8″. Pp. xxiii + 617. 22*s*. 6*d*.

[To be reviewed.]

THOMSON (C. A. H.). Overseas Information Service of the United States Government. Washington D.C.: Brookings Institution, 1948. 9″. Pp. xii + 397. $4.00.

[An account of the work of the United States Office of War Information and of the information services of the Co-ordinator of Inter-American Affairs.]

WHITTLESEY (C. R.). Principles and Practices of Money and Banking. New York and London: Macmillan, 1948. 8″. Pp. xxiv + 688. 24*s*.

[This is a solid and useful text of money and banking which has many of the virtues and some of the disadvantages of being old-fashioned. It starts with basic concepts, the use of money and the development of forms of money. It goes on to credit instruments, banking and the functions of banks and associated financial and credit institutions. It then proceeds to a brief and agnostic review of monetary theories. Having disposed of these preliminaries in 100 pages it can get down to a solid 550 pages of banking principles, problems and practices. The currency and banking history of the U.S.A. gets full measure of treatment. The financial history is covered pretty fully not only between the wars, but right down to 1945. Fiscal policies for full employment (including the British White Paper) get a chapter. Finally current financial problems are examined with a special eye to the effect of interest rates, national debt and deficit financing, and the problems of international finance, exchange, the I.M.F. and reconstruction. A very solid, useful and informative book, well worth consideration, but the verdict may be that it is better suited as an American than as a British text.]

WOLMAN (L.). Industry-Wide Bargaining. New York: Foundation for Economic Education, 1948. 9″. Pp. 63. 50 cents.

[Prof. Wolman is gravely concerned about the dangers to the American economy from nation-wide wage bargaining. " The theory on which the national union operates is essentially monopolistic. . . . Once they achieve or approximate full control over a competitive industry, national unions become, next to the government, the next effective cost-and-price-raising instruments of modern times. In the long run they have this effect not only by reason of their wage policies but through the ways they limit the right to manage and devise elaborate and cumulative restrictions of output." " The most urgent and effective means for dealing with the evils which have arisen in labor relations consist in removing the special privileges granted organized labor by government during the last decade. . . . At bottom, however, the problem of labor monopoly cannot be effectively dealt with unless, and until, the immunity to the anti-trust laws which organized labour has enjoyed since 1914 is withdrawn."]

ZIPF (G. K.). Human Behaviour and the Principle of Least Effort. Cambridge, Mass.: Addison-Wesley Press, 1949. 9″. Pp. x + 573. $6.50.

[To be reviewed.]

French.

CADART (J.). Régime Électoral et Régime Parlementaire en Grande-Bretagne. Cahiers de la Fondation Nationale des Sciences Politiques, No. 5. Paris: Armand Colin, 1948. 9½". Pp. 224.

[The author, impressed by the stability of British political institutions compared with those of France, has endeavoured to ascertain how far the British electoral and parliamentary systems could be applied to his own country. The result is a well-documented account of the evolution and present structure of British politics including a careful statistical analysis of recent elections compiled from authoritative British sources. A distinctive feature of the book is a short appraisal of the case for proportional representation. M. Cadart concludes that the instability of French political conditions means that the British system of majority rule would not be readily applicable to France—" the parliamentary system (in France) runs the risk of disappearing altogether. It is merely sufficient for a party to be hostile to the parliamentary system or simply indifferent to it, in order for it to bring about its downfall and replacement by another form of government." Finally, M. Cadart places particular emphasis upon the right of dissolution afforded to the government in power in Great Britain which promotes stable majority rule. It is therefore paradoxical that this right is denied to the executive in France primarily in order to preserve the supremacy of the National Assembly.]

D'ESTAING (E. G.). Le Chemin de la Pauvreté. Paris: Spid, 1947. 7". Pp. 292.

[The publishers claim for this book that it is the French counterpart to Hayek's *Road to Serfdom*. This is a poor description of it, for it is much narrower in scope. M. D'Estaing is solely concerned with the development of a strong indictment of the post-war economic programmes of successive French governments committed to extensive nationalisation projects. The main characteristic of the book is its polemical style of the best French journalistic tradition—" Dieu, le Père, ayant créé le monde, s'arrêta le septième jour. Mais vint le dirigiste qui le huitième jour, prétendit parachever l'œuvre qu'il estimait incomplète." ! As one might expect, the case against State direction is rather overstated. It might well be argued that political exigencies alone cannot acquit successive administrations in France from the charges brought against them with regard to fiscal and financial policy and its effect on wages and prices. M. D'Estaing drives home this point with great force. However, the complex problems of the post-war French economy cannot be solved merely by a return to " la santé monétaire." The reviewer has looked in vain for mention of the Monnet Plan, but M. D'Estaing has concentrated so much upon the description of particular failures in the various sectors of the French economy that he seems to have been unaware of any overall economic recovery programme for his own country.]

GOETZ-GIREY (R.). La Pensée Syndicale Française militants et théoriciens. Paris: Librairie Armand Colin, 1948. 9½". Pp. 173.

[This book contains a useful outline-history of tendencies in French trade unionism. Those who remember that stimulating but evanescent first contact with the ideas of the French syndicalists, introduced to us through G. D. H. Cole's *World of Labour* at the time of the First World War, will read Professor Goetz-Girey's chapters about Pelloutier and Sorel, the Fédération des Bourses du Travail and the birth of the C.G.T., with special relish. In Part 2 the author proceeds to describe what he chooses to call " le syndicalisme intégré et constructeur "; among which he includes the theories of Molinari, Durkheim and Duguit and the practice of the " syndicats jaunes," and of the catholic and the reformist unions. From this he proceeds to describe the rise of the idea of Corporativism (embodying the notion of an identity of interests of workers and employers) and to discuss the rôle of trade unions in an " économie dirigée." The short concluding chapter on the future of trade unionism brings an interesting work to a rather disappointing close, and contains little that is stimulating or new.]

GONNARD (R.). La Conquête Portugaise. Découvreurs et Économistes. Paris: Librairie de Medicis, 1947. 7½". Pp. 162. 150 fr.

[The British reader will be familiar with the story of sixteenth-century Portuguese discoveries, but there must hardly be one book in the English language

which considers the writings of the Portuguese mercantilists who examined the economic effects of early colonial expansion. Prof. Gonnard gives a highly interesting summary of the views of four of them, Luis Mendes de Vasconcelos, Duarte Gomes Solis, Severin de Faria and Duarte Ribeiro de Macedo, all of whom wrote within the period 1580–1680. The writings of the first-named, Vasconcelos, are noteworthy for their critical appraisal of the economic and political effects of Iberian colonial policy.]

Les Minorités Ethniques en Europe Centrale et Balkanique. Institut National de la Statistique et des Études Économique. Paris: Presses Universitaires, 1946. 9½". Pp. 93.

[A short study of racial minorities in Eastern Europe covering the Balkans, Italy, Austria and Czechoslovakia. Because of the profound changes wrought by the Second World War, the study has been limited to a description of the location and vital statistics of minorities in these countries using 1938 for comparative purposes.]

Mossé (R.). Le Système Monétaire de Bretton Woods. et les Grands Problèmes de l'Après-Guerre. Paris: Recueil Sirey, 1948. 10". Pp. 152.

[To be reviewed.]

Waline (P.). Les Relations entre Patrons et Ouvriers dans l'Angleterre a'aujourd'hui. Paris: Marcel Rivière, 1948. 9". Pp. 304. 400 fr.

[To be reviewed.]

Dutch.

Kernkamp (J. H.). Economisch-historische Aspecten van de Literatuurproductie. 'S-Gravenhage: Martinus Nijhoff, 1949. 9". Pp. 32.

[This is a reprint of Dr. Kernkamp's inaugural lecture at the Rotterdam School of Economics. It surveys the economic history of printing and publishing on the Continent, and gives some fascinating glimpses of the fairs held at regular intervals in Leipzig and Frankfurt as early as the sixteenth century.]

Swiss.

Baumgartner (R.). Die wirtschaftliche Bedeutung der chemischen Industrie in Basel. Berne: Francke, 1947. 9". Pp. 197.

[A detailed statistical study of the sections of the Swiss chemical industry that are located in Basle and their relation to the Swiss chemical industries as a whole. Most of the data refers to 1939.]

Beglinger (J.-F.). Les Conditions Économiques de la Paix. Lausanne: Librairie F. Rouge, 1947. 9". Pp. 264.

[The first two-thirds of this book are devoted to reviewing in successive sections the principal books on the economic bases of peace. The authors selected for treatment include E. H. Carr, J. E. Meade, Hans Heymann, Oswald Dutch, Lord Beveridge, Antonin Basch. In the last third of the book the author goes on to develop his own ideas of the roots of our present difficulties, the extent to which they are economic rather than psychological, the underlying moral causes and the possible remedies.]

Saitzew (M.) (Ed.). Zürcher Volkswirtschaftliche Forschungen. Vol. 34. *Etienne Bonnot de Condillac.* By P. Meyer. 1944. Pp. viii + 252. Sw. fr. 15. Vol. 35. *Der Staat und die Kartelle.* By E. Eggmann. 1945. Pp. xii + 224. Sw. fr. 15. Vol. 36. *Der Suezkanal als Konjunkturanzeiger der Weltwirtschaft.* By G. Mehrlin. 1945. Pp. xxii + 221. Sw. fr. 17.50. Vol. 37. *Der Gedanke der Autarkie.* By J. Niehans. 1945. Pp. xx + 248. Sw. fr. 16. Vol. 38. *Jean-Joseph-Louis Graslin.* By E. Borschberg. 1946.

Pp. x + 193. Sw. fr. 13.50. Vol. 39. *Der Personennahverkehr der Stadt Zürich.* By E. Jäger. 1946. Pp. xx + 375. Sw. fr. 27.50. Vol. 40. *Die Saisonschwankungen in der schweizerischen Volkswirtschaft.* By F. Ehrsam. 1948. Pp. xvi + 252. Sw. fr. 22.50. Zürich : H. Girsberger. 9½″.

[To be reviewed.]

German.

Brinkmann (C.). Soziologische Theorie der Revolution. Göttingen : Vandenhoeck and Ruprecht, 1948. 9″. Pp. 117.

[To be reviewed.]

Brinkmann (C.). Wirtschaftstheorie. Göttingen : Vandenhoeck and Ruprecht, 1948. 8½″. Pp. 135.

[To be reviewed.]

Eichborn (R. von). Spezialwörterbuch für Handel und Wirtschaft. II Teil : Englisch-Deutsch. Stuttgart : Deutsch Verlags-Anstalt, 1948. Pp. 391.

[This is the English–German portion of a dictionary or vocabulary of commercial, financial and industrial terms, the German-English portion of which has already appeared. The present volume is likely to be of great assistance to all who are concerned with finding the correct German equivalent for expressions which are in current use in the business world. Any one who has tried to use an ordinary dictionary for this purpose will know that these terms are barely catered for at all. Herr von Eichborn's vocabulary is handy in size and remarkably comprehensive within its scope, though its value to the professional economist would be increased if it contained more of the special terms which he is accustomed to use. A certain number of these are, indeed, to be found here, such as marginal utility and disutility, marginal cost, but not marginal revenue, nor comparative costs, nor the terms of trade, nor many other familiar terms. There is one rather surprising omission, which is surely an unfortunate one—no genders are attached to any of the German nouns, with the result that the user whose native language is English and who is not already familiar with German, must either guess at the gender or look the word up in a German–English dictionary. Despite these criticisms there is good cause to be grateful for a soundly conceived and well-executed English–German vocabulary of technical terms employed in trade, industry, banking, the stock-exchange and the like. There is also a very useful Appendix giving comparative tables of English, American, and metric, weights and measures.]

Kuczynski (J.). Studien zur Geschichte des deutschen Imperialismus. Vol. I. Monopole und Unternehmerverbände. Berlin : Dietz Verlag, 1948. 8″. Pp. 403.

[To be reviewed.]

Austrian.

Illy (L.). Das Gesetz des Grenznutzens. Vienna : Springer-Verlag, 1948. 9½″. Pp. iv + 344.

[To be reviewed.]

Italian.

Bordin (A.). Principî di scienza economica. Turin : G. Giappichelli, 1948. 10″. Pp. iv + 250. 1300 l.

[The second edition of an introductory text-book first published in 1945. It deals on a fairly abstract level with the basic theories of exchange and production.]

Bordin (A.). Scambi internazionali e moneta. Turin : G. Giappichelli, 1948. 10″. Pp. 406. 1300 l.

[A mimeographic reproduction of a course of lectures, delivered at the University of Turin in the academic year 1947–48, on international trade and money.]

BORDIN (A.). Statica economica. Milan: Giuseppe Principato, 1948. 10″. Pp. viii + 290.

[A mathematical presentation of the pure theory of value in terms of equilibrium analysis, with some reference also to problems of a planned economy.]

GAMBINO (A.). Problemi della Politica Creditizia. Milan: Rodolfo Malfasi, 1948. 9½″. Pp. 155.

[To be reviewed.]

MORSELLI (E.). Corso di scienza della finanza pubblica. Vol. I. Primi principi di scienza delle finanze e diritto finanziario. Padua: Cedam, 1949. 10″. Pp. 322. 1200 l.

[The fourth edition of a course of lectures on Public Finance. This first volume deals with "First Principles."]

ROMANI (M.). Pellegrini e viaggiatori nell'economia di Roma dal XIV al XVII secolo. Milan: "Vita e Pensiero," 1948. 10″. Pp. xiii + 350. 1200 l.

[This is an historical study of the economic aspects of the pilgrimages to Rome from the fourteenth to the seventeenth centuries. The first chapter deals with the communications, security and generally with the conditions in which the journey was performed. Subsequent chapters consider accommodation in Rome, and the charges made on the visitors, and attempt estimates of their numbers. A final chapter assesses the repercussions of the pilgrimages on the economic life of the city.]

VOLPE (G. LA). Convenienza economica collettiva. Padua: Cedam, 1948. 10″. Pp. xvi + 281. 2000 l.

[A treatise on collective economic welfare.]

Spanish.

LEVI-PROVENÇAL (E.) and GOMEZ (E. G.). Sevilla a comienzos del siglo XII. Madrid: Moneda y Crédito, 1948. 7″. Pp. 203. 27 pesetas.

[A Spanish adaptation of a French translation of a treatise in Arabic by Ibn 'Abdūn on Seville at the beginning of the twelfth century. Señor Gomez has retained as they stand Monsieur Levi-Provençal's introduction and notes and the general form of his translation, but has also consulted the original Arabic text for the adaptation of the treatise itself.]

PABON (J.). Zarismo y Bolchevismo. Madrid: Moneda y Crédito, 1948. 7″. Pp. 217. 27 pesetas.

[This book—Zarism and Bolchevism—is a collection of three essays entitled "The U.S.S.R. and Europe," "The Grand Duchess and the Terrorist" and "The Great Trials."]

SARDÁ (J.). La Política Monetaria y las fluctuaciones de la Economía española en el siglo XIX. Madrid: Instituto de Economía "Sancho de Moncado," 1948. 9″. Pp. 366.

[A study of Spanish monetary policy and the fluctuations in the country's economy during the nineteenth century.]

VILLALBÍ (P. G.). Política de la Producción. Barcelona: Editorial Juventud, 1948. 8½″. Pp. xxii + 809. 100 pesetas.

[This is Volume II of the proposed four volumes of Professor Villalbí's *Curso de Política Económica Contemporánea*. The first part deals with the theory of production and the fundamental practical issues of its development; a second with the labour problem in production. In a third section Professor Villalbí considers agrarian policy in various European countries and the United States, animal husbandry and afforestation. A fourth section is devoted to mining and other industries. There is a useful index and very full and careful chapter headings.]

Swedish.

LÖWEGREN (G.). Swedish Iron and Steel. A historical survey. Stockholm: Svenska Handelsbanken, 1948. 9″. Pp. 123. 4 Sw. kr.

[An English version of a short but valuable monograph which outlines the history of the Swedish iron and steel industry from the earliest times down to the present days. It contains also some useful material on the iron resources of Sweden.]

Czech.

MARTIN, K. and Others. Úvahy o Plánování. Prague: Orbis, 1948. 8″. Pp. 53. Kčs. 24.

[This booklet has been issued on behalf of the Czechoslovak Planning Commission and it contains, apart from the essay referred to in the title, also essays by H. Minc, the Polish Minister of Industry, on planning in Poland and by N. A. Vozněsenskij on the war economy of the Soviet Union. Dr. Martin is trying to justify planning with a black and white technique which fails to persuade. In view of the fact that this essay embodies a lecture given by the author to a group of provincial officials of the Communist party, persuasion may not have been intended.]

ŠIMÁK, J. Export—jeho organisace a technika. Prague: Melantrich, 1946. 8″. Pp. 246. Kčs. 120.

[This is a handbook on the export trade containing chapters on the general importance of exports for the national economy, the organisation of an export house, the technique of the export trade and the bodies which may assist the exporter. Though it hardly pretends to be more than an elementary approach to the problems covered, it is well written and, within its limits, exhaustive.]

SPÁČIL, B. and Others. Zemědělská daň. Prague: Orbis, 1948. 7″. Pp. 452. Kčs. 128.

[This is a detailed commentary on the law relating to the agricultural tax. The purpose of the tax is to increase agricultural production by reducing the disincentive effects of previous taxation measures, and also, by a measure of discrimination against the larger farmers, to assist the government in the destruction of that class.]

Egyptian.

NASSIF (ELIE). Capitalisme ou Collectivisme. Cairo: Les Lettres Françaises, 1946. 9½″. Pp. 190.

[This book examines the relative attainments of capitalist and collectivist economies with regard to the raising of the standard of living, maintenance of stable employment and suitable social institutions. The first ten pages are a familiar recitation of the merits and demerits of Capitalism, concluding with a sentence that may be taken as typical of the whole book—"it seems that the prospects of the resistance and the survival of capitalism are much more the function of the degree of force and cohesion of the political and social elements which are in combat with it, and a function of the political capacity of the classes in power rather than a function of its merits and demerits. The problem is a political, social and biological one rather than an economic one." The section on Soviet collectivism collates a great deal of statistical material from a large number of sources. The conclusions are rather indefinite. Collectivism *à la Russe* appears to be no substitute for modern Capitalism, in the author's opinion, but whether Capitalism can be reformed is difficult to determine.]

Chinese.

Social Sciences Study Papers. No. 1. *National Income of China, 1933, 1936 and 1946.* By Pao-San Ou. 1947. Pp. 26. No. 2. *China's Industrial Production, 1931–1946.* By Foh-Shen Wang. 1948. Pp. 17. Nanking: Institute of Social Sciences. 9″.

[Of these two pamphlets, No. 1 gives an estimate of the Chinese national income, built up from somewhat exiguous material. Estimates for 1933 and 1936

are taken from an earlier work by the same author. The estimate for 1946 has been added, mainly with the aid of comparative data of physical output, not all of which has a nation-wide coverage. The resultant estimates are made at pre-war prices. They inevitably have a considerable margin of error. They suggest that the 1946 national income was about 90·8% of that of 1936, with a population some 4·5% greater. No. 2 provides an index of China's industrial production. It is estimated to have risen from 79 in 1936 (1942 = 100) and 36 in 1938 to 114 in 1945 and then to have fallen to 75 in 1946.]

Official.

BRITISH.

DEPARTMENT OF TRADE AND COMMERCE. Report on the Administration of the Emergency Exchange Conservation Act, Schedule III; November 17, 1947 to December 31, 1948. Ottawa: Department of Trade and Commerce, 1949. 11″. Pp. 31.

[This very interesting report shows the measures taken by Canada to control imports and stimulate home production because of her dollar shortage and the changes of imports between 1947 and 1948.]

GOLDENBERG (H. C.). Bread-Baking Industry in Western Canada. Ottawa: Combines Investigation Commission, Department of Justice, 1948. 10″. Pp. 115. 25 cents.

[This is a report by Mr. Carl Goldenberg, who was appointed a Special Commissioner under the Combines Investigation Act to inquire into an alleged Combine in the bread-baking industry in the three provinces of Saskatchewan, Alberta and British Columbia.]

OFFICE OF THE INDUSTRIAL ASSURANCE COMMISSIONER. Industrial Assurance. Statistical Summary, 1937–1947. London: H.M. Stationery Office, 1948. 12½″. Pp. 4. 3*d.*

[A summary of the results of industrial assurance companies and collecting societies incorporated or registered in Great Britain for the years 1937–47. The total fund rose from £409 million in 1937 to £736 million in 1947.]

BELGIAN.

Compte Rendu des opérations et de la situation de la Caisse Générale d'Épargne et de Retraite de Belgique instituée par la loi du 16 mars 1865 sous la garantie de l'État. Brussels, 1947. 12″. Pp. 297.

[A survey for the year 1947.]

CZECHOSLOVAK.

The Constitution of the Czechoslovak Republic. Prague: Ministry of Information, 1948. 9½″. Pp. 77.

[Part VIII of the Constitution deals with the economic system of Czechoslovakia. It is laid down that the means and instruments of production shall be either national property, or the property of People's Co-operatives, or in private ownership of individual producers. Certain industries are enumerated as being exclusively national property but the private ownership of small and medium enterprises of up to 50 employees, and the private ownership of land in respect of farmers who till the land in person where the land does not exceed 50 hectares, is guaranteed. Private monopoly organisations operating for profit, in particular cartels, trusts and syndicates, are prohibited.]

Průběh plnění hospodářského plánu. II čtvrtletí 1948. Prague: Ministry of Information, 1948. 8″. Pp. 87. Kčs. 58.

[This is a continuation of the series of quarterly reports on the progress of the Czechoslovak economic plan. The present volume deals with the second quarter of 1948. The presentation suffers from an insufficient commentary to the abundance of figures contained in the book. If this book is intended for the information of laymen it is hardly likely to achieve its object.]

První československý pětiletý plán. Prague: Ministry of Information, 1948. 8″. Pp. 171. Kčs. 35.

[This is a discussion of the economic and legal bases for the five year plan adopted by Czechoslovakia in 1948. It contains statements by the Communist President and Prime Minister of Czechoslovakia, the text of the Act by which the plan has been brought into operation together with the introductory government memorandum to it and detailed figures relating to the sectional plans to be attained in every industrial field.]

POLISH.

Contribution to Vital Statistics in Poland in 1946 and 1947. Warsaw: Central Statistical Office, 1949. 11½″. Pp. viii + 32.

[This volume of vital statistics includes an English preface and the table-headings are all in English as well as Polish.]

Information on Poland. Warsaw: Ministry of Foreign Affairs, 1949. 10″.

[A loose-leaf volume of information in English about Poland, issued by the Ministry of Economic Affairs of the Polish Republic. It is proposed to prepare and circulate further information for inclusion at intervals. The volume already includes a great deal of statistical and economic information.]

INTERNATIONAL.

DEPARTMENT OF ECONOMIC AFFAIRS. Post-war Shortages of Food and Coal. Lake Success: United Nations, 1948. 9″. Pp. 37. 50 cents.

[This pamphlet aims to throw light on the food and coal shortages from which the world has been suffering. The analysis of food shortage is conducted in terms of four concepts: the effects of change in the feeding ratio, in the net food-consumption ratio, the net import ratio, in home-produced supplies. Unfortunately the exposition is so very obscure that even a careful reader will be left in a state of considerable mystification. This would have been much reduced if the basic data had been included in the main text rather than in an appendix. The problems of coal are examined by attempting to compare the actual fuel supplies with those which would have been necessary on the assumption that the actual levels of activity of 1946 and 1947 had been associated with the same consumption of coal per unit as in 1937. It is far from clear what the authors believe that this ratio shows. Does it really show the inadequacy of fuel supplies or the economy which we have learned to make? The authors appear to recognise that it is in any case misleading because it takes no account of the extent to which industrial production was kept down through shortage of coal supplies.]

International Bank for Reconstruction and Development. Third Annual Report, 1947–1948. Washington: International Bank, 1948. 11″. Pp. 48.

[To be reviewed.]

INTERNATIONAL LABOUR OFFICE. Housing and Employment. Geneva and London: International Labour Office, 1948. 9½″. Pp. 147. 3*s*. 9*d*.

[This is a curious document. It gives the impression of having been written by someone immured since 1938 in an ivory tower, remote from all the affairs of the world. We are back in a world in which house-building is a means of preventing unemployment, nations are irrationally unwilling to spend enough on housing, taxation ought to be rigged to stimulate investment and exports are to be encouraged by nations maintaining a higher level of internal activity. Perhaps the author is living five years ahead of time instead of fifteen years behind it. Perhaps he is too much influenced by United States conditions and prospects. But as a contribution to the acute housing problems of the moment in Europe this report will not be of great value.]

INTERNATIONAL LABOUR OFFICE. Labour Management Co-operation in United States War Production. Montreal and London: International Labour Office, 1948. 9″. Pp. vi + 402. Bound 15*s*. Paper 11*s*. 3*d*.

[A very full account of the United States handling of the problems of labour-management co-operation during the war. It is designed to form a companion volume to the study entitled *British Joint Production Machinery*, published by the I.L.O. in 1944. English readers may well find the chapter which makes comparison of United States and British methods the most interesting part of the volume.]

INTERNATIONAL LABOUR OFFICE. Second Session of the Permanent Migration Committee. Geneva and London: International Labour Office, 1948. 9½″. Pp. 172. 5*s*.

[The chief questions under consideration were the revision of the Migration for Employment Convention of 1939, the drafting of a novel migration agreement, the technical selection and training of migrants, the co-ordination of international responsibilities.]

INTERNATIONAL MONETARY FUND. Financial Statement for the Period June 1 to July 31, 1948. Washington D.C.: International Monetary Fund, 1948. 9″. Pp. 4.

[A statement of the assets and liabilities of the I.M.F. which includes a full record of the holdings of all the various currencies at July 31, 1948.]

INTERNATIONAL MONETARY FUND. Schedule of Par Values. Sixth issue. Washington D.C.: International Monetary Fund, 1948. 9″. Pp. 7.

[This convenient schedule gives the par values of all currencies, both of metropolitan areas and of the dependent non-metropolitan areas.]

What the United Nations is doing for Better World Trade. Lake Success: United Nations, 1948. 7½″. Pp. 17. 15 cents.

[A brief account of the Havana Charter and of the working of I.T.O.]

What the United Nations is doing for the Status of Women. Lake Success: United Nations, 1948. 8″. Pp. 14. 15 cents.

[The Charter of the United Nations affirmed the equal rights of men and women. This pamphlet gives a brief account of what has since been done, mainly through the Economic and Social Council, the Commission on Human Rights and a subsequently established Commission on the status of women, to give effect to the charter.]

THE ECONOMIC JOURNAL

SEPTEMBER, 1949

THE BRITISH COMMONWEALTH AND EUROPEAN ECONOMIC CO-OPERATION [1]

The primary impetus to closer co-operation in Europe may be political, but for the present discussion I want to focus attention on the economic issues, particularly, of course, the balance-of-payments problem. Apart from certain immediate objectives, such as the extension of transferability of European currencies, it is clear from the nature of the further methods of closer co-operation currently canvassed that they are meant to serve longer-term objectives. It is right that they should. But before these methods can be appraised it is necessary to ask precisely what problems they are intended to solve and in what kind of world-trading system they may be expected to operate. The present paper therefore falls into four parts: (i) the nature of Europe's economic problems; (ii) an examination of various arguments which point either to the inevitability or to the desirability in the longer-run of the use of discriminatory devices to cope with balance-of-payments problems; (iii) an appraisal of the proposals for a European Customs Union, both from the point of view of what this would be likely to imply and from the point of view of the United Kingdom's ties with the countries of the Commonwealth; (iv) some suggestions of measures of co-operation which seem to avoid the pitfalls encountered by the Customs Union proposal and which would, it is felt, more fully than a Customs Union serve the longer-term objectives.

(i) *The Nature of Europe's Economic Problems*

The basic cause of Europe's economic problems is the structural change brought about by the War. It is excellently described in the *General Report* of the Committee of European Economic Co-operation in this way:—

"The normal pattern of trade between the participating countries and Germany and the American continent was a

[1] A slightly shorter version of this paper was read at the Conference of University Teachers of Economics at Bristol on January 9, 1949. A few revisions have been made in the light of the discussion at the Conference.

> substantial deficit against the former on trading account; this deficit was $1,450 millions in 1938. This adverse trade balance was offset by the participating countries' earnings on invisible account, by the sale of colonial produce to the United States, and by earnings of dollars from sales to the rest of the world. This was the customary process of multilateral trade.
>
> All these factors have been distorted by the war. The foreign investment income is gone; there is a big dollar bill for shipping services; tourist income has not yet recovered. At the same time, the loss of other sources of supply has forced Europe to turn to the American continent for essential supplies on a much greater scale than before, and prices have increased heavily; the dislocation of industry by the war has tended to damage particularly industries and agriculture which contributed most to Europe's dollar income. The destruction in the Japanese war has turned the net income of sales of rubber, tin and other dollar-earning colonial products into a net expenditure. Finally, the shortage of dollars generally has made it hardly possible for Europe to earn dollars by sales to the rest of the world. The size of the deficit results from the cumulative effect of all these forces." (p. 29.)

Until 1947 explanations of Europe's problems ran in these terms, that is in terms of the real consequences, in part short-run and in part more enduring, of the War. Some could be righted during the period of Marshall Aid, but others could not. These latter constitute the hard core of the adjustment problem. One important item is the loss of investment income, which for Europe as a whole was some $1 billion less in 1947 than in 1938. The uneven incidence of this latter alone would require changes in the structure of European balances of payments if a new equilibrium is to be struck. The heaviest losses were those of the United Kingdom. Therefore a new equilibrium will require a change in the United Kingdom's balance of payments with other European countries. The pre-war pattern of trade and payments involved on the one side import surpluses by the United Kingdom with all but two (Greece and Turkey) European countries which were in part offset by invisible receipts, while on the other side Germany had export surpluses to most European countries which they were able to offset against their sterling earnings. Any realistic picture of a new equilibrium of European payments must allow for the reduced import surpluses with European countries that the United Kingdom can sustain while her export balances elsewhere are at a lower level than pre-war. It is a condition, therefore, for any scheme of closer co-operation that increased imports

by the United Kingdom from Europe must be matched by corresponding exports to Europe either by an increase in European imports or by a diversion of purchases from elsewhere, or both.

In 1947 the economic and financial situation of Europe suffered a serious setback. This may in part be accounted for by the weather, which adversely affected both industrial and agricultural production. But in greater degree it was associated with the monetary difficulties which came to a head in that year. In so far as the monetary difficulties were due to methods of deficit financing it is fortunate that the connection between them and the external imbalance has become more widely appreciated. With open inflation the rise in domestic prices increased the incentive to import, while exchange rates were stable, and reduced the ability to export. With suppressed inflation, factors of production were drawn away from the export sector by the clamant domestic demand, and there was every incentive to evade allocations of products to export in favour of the more lucrative home market.

There are two further aspects which should be given their due weight. In the first place, the removal, by budget surpluses or otherwise, of the inflationary pressure is only a first step in the process of adjustment. Its removal will free resources which can then be used in the export sector or at home to close the gap between imports and exports. Unless this diversion is effective, the structural disequilibrium will remain. In the second place, while the readjustment problem is in great measure eased by the receipt of external aid it is also in the short-run to some extent complicated. When aid is received in the form of foodstuffs and tobacco it exerts a disinflationary effect which owing to the yield of tax revenue on its sale may be considerable.[1] At the same time, however, the receipt of raw materials and producers' goods generally is likely to exert in the short-run a net inflationary stimulus. This will be so where they are complementary to internal resources. Their receipt will then tend to stoke up the inflationary pressure by increasing the range of competing demands for co-operant factors. The more external assistance takes the form of eliminating "bottlenecks" on production and increasing the availability of complements the more difficult it becomes to cope with these effects. A disinflationary policy based on a curtailment of capital formation will not, of course, come up against this complication; neither will it contribute towards structural readjustment. If there are to be

[1] See Sir Hubert Henderson, "Cheap Money and the Budget," Economic Journal, Vol. LVII, No. 227, September 1947, pp. 270–1.

producers' goods in the external aid, the disinflationary policy should free the right kinds of resources so that the absorption of producers' goods does not exert an added pressure on wages and other factor prices.

The test of internal policy is, therefore, not whether it grapples successfully with monetary pressure with the assistance of relief deliveries from abroad, but rather whether it copes with the problem of changing the productive structure of the economy with the help of reconstruction imports. Time is short and the external gap considerable. According to the *Survey of the Economic Situation and Prospects of Europe* "to restore equilibrium in Europe's balance of payments with overseas will require a large expansion of exports or a large contraction of imports or some combination of both methods. In relation to the 1938 volume of oversea trade, the gap to be filled is in the order of $2,000 million and would require a 56 per cent increase in Europe's exports or a 36 per cent contraction in its imports. In relation to the 1947 levels of trade (expressed in 1938 prices) the gap is about $3,300 million and would involve a 114 per cent increase in exports or a 53 per cent contraction in imports." [1] Given this position what methods of closer co-operation should European countries consider?

(ii) *The Nature of the Longer-run Trade Setting*

This depends in great measure on the nature of the trading system working in the longer-run when the European problem of producing exportable goods and services has become one of selling the goods and services they are capable of producing. Several arguments have been adduced to show that this latter problem is not finally soluble, that, in other words, there is an intractable dollar shortage. Neither the theoretical arguments nor the empirical evidence of those who have made this thesis have much in common. For the present purpose it will suffice to examine four such views.[2] In the first place, it appears that we should confine within narrow limits the contention that "classical doctrine that no country can undersell the rest all round is not fully applicable to the real world." [3] May I quote the argument :—

> "Starting from a position of balanced trade, suppose that one country, Alpha, improves in efficiency in producing

[1] *Research and Planning Division, Economic Commission for Europe*, Geneva, April 1948, p. 66.

[2] We may ignore the theoretically conceivable but highly unlikely possibility that there might be such low elasticities of demand of each country for imports that no equilibrium could be found. (See Marshall, *Money, Credit and Commerce*, p. 354.)

[3] Mrs. J. Robinson, "The Pure Theory of International Trade," *The Review of Economic Studies*, Vol. XIV (2), p. 104.

tradable goods. She now develops a surplus of exports. If there were already nearly full employment in Alpha at the beginning of the story, money-wage rates would start to rise, and the surplus would be wiped out. But if there was sufficient unemployment (in open or disguised form) to permit the increase in output to take place (along with any further consequential increase due to increased home investment) and still leave a reserve of labour, there is no reason why money wages should rise. Alpha is now a country of cheap labour, in the sense that her productivity, relatively to the rest of the world, exceeds her wage level relatively to the rest of the world, and she is underselling the rest of the world all round, in the sense that she is a low-cost producer over a wider range of tradable output than that over which she is a high-cost producer. Her terms of trade are less favourable than they would be if wages rose to the equilibrium level, and the rest of the world benefits to the extent that her goods are sold so much the cheaper. But the rest of the world experiences the disadvantage of having lost markets to Alpha and is consequently suffering from unemployment, or from greater difficulty in maintaining employment. It also experiences monetary difficulties owing to the drain of gold to Alpha."

The argument is summed up thus :—

> "Whether the standard of life is high or low, a surplus tends to develop wherever productivity increases faster, relatively to money-wage rates, than in the rest of the world. Since technical progress and capital accumulation proceed very unevenly over the world, while the response of wage rates to increased employment is very sluggish, the tendency to establish the equilibrium wage rates never works fast enough to catch up with changing circumstances."

It is concluded therefore that "the classical model shows us that in reality disequilibrium is the normal rule." But the argument as stated does not support such a general conclusion. It assumes that either unemployment or a marked lag in the adjustment of money-wage rates maintains the initial advantage of Alpha. If the improvement in efficiency and the deterioration in the terms of trade of Alpha continued, this would not continue to hold. The deflationary pressure on the outside world is apparently invoked to ensure that the process does not continue long enough in Alpha for money-wage rates to rise. The deflationary movement in the rest of the world cuts short any equilibrating tendency.[1] It may also be that the two-country

[1] A similar deflationary process is invoked by Dr. T. Balogh in his critique of Mr. G. D. A. MacDougall's demonstration of the general effectiveness of devaluation. (ECONOMIC JOURNAL, Vol. LVIII, No. 229, p. 83.)

and few-commodity case has led to an exaggeration of the repercussions of the lag in the operation of the wage adjustment in Alpha, just as similar examples exaggerate the degree to which a country can turn the terms of trade in its own favour by the imposition of a tariff not exceeding a certain optimal level.

The other arguments to be examined are more specifically related to the existing maladjustment between the productive resources of the United States and elsewhere. Among the first of these was the thesis advanced by Dr. C. P. Kindleberger.[1]

> "At basis," he says, "the explanation for the chronic world shortage of dollars is to be found in the technical superiority of the United States in the production of many goods necessary to a high modern standard of living and to the natural desire in other countries to raise real incomes faster than the basic conditions of their economic productivity justify. The United States has large and fairly balanced natural resources, relatively modern and efficient capital equipment, but a large domestic market for the output of its own mass-production industries. The United States can produce a variety of producers' and consumers' goods with a price and quality advantage so great as to be almost absolute. The advantages of other countries over the Unites States in the production of other industrial goods are relatively narrow. Under these conditions the law of comparative advantage can establish equilibrium in international trade only with great difficulty, especially since technological advance is being made in the United States and abroad at a rapid pace." (pp. 379–80.)

The detailed argument appears to use the terms "income elasticity of demand" and "marginal propensity to import" as synonyms. The intention appears to be to assume that the United States has a comparatively low income elasticity of demand for imports and a low ratio of exports to national income, while the rest of the world has a high income elasticity of demand for imports and a high ratio of exports to national income. Starting from an equilibrium position, an increase in income in the United States and in the rest of the world would raise the demand for American goods more than it would raise American demand for imports: a dollar shortage would result. But this would, in fact, be chronic only if the process stopped there. It would in practice lead to consequential movements of income in the U.S. and elsewhere. The American export surplus would raise incomes further, while the import surplus elsewhere would depress

[1] "International Monetary Stabilization" (in *Postwar Economic Problems*, edited by S. E. Harris, New York, 1943).

incomes. The multiplier effect would bring about balance of payments equilibrium if it were permitted to operate fully in both the U.S. and the rest of the world.

It is odd that Dr. Kindleberger found empirical support for his thesis not by measuring the relevant elasticities nor by showing the realisation, during periods of rising incomes, of severe pressures on the foreign-exchange market but instead by appeal to the balance of U.S. merchandise trade. "That a shortage exists," he claims, "is supported by the fact that the merchandise trade balance of the U.S. has been favourable each year since the large-scale capital imports of the 1870's." But is evidence of such an active balance really proof of such a dollar shortage? Does it not, in fact, suggest that interest-rate differentials have induced foreign lending by Americans? No useful purpose is served by treating capital outflow, both long- and short-term, as synonymous with deep-seated difficulties in realising equilibrium in the foreign exchanges.

While Dr. Kindleberger appeals to experience during periods of American prosperity to verify his thesis, Professor S. E. Harris appeals to experience during a period of American depression. By "dollar scarcity" he chooses to mean "an excess of dollars used over dollars supplied, the difference being made up by the borrowing on short-term account from the United States and shipping gold to the United States." [1] This definition may be useful for some purposes, but in the context it is hardly adequate without further elaboration, for it includes within the total all capital flights from Europe and elsewhere to the United States and the withdrawal of capital from Europe and elsewhere. A sudden cessation of international lending—as *a priori* reasoning would lead one to expect and as experience time and again has shown—or a movement of funds not induced by interest-rate differentials will have seriously disturbing effects. But these movements should be separated from any which are due to operative disequilibrium tendencies or to failure in the equilibrating processes.

Finally, let us turn to the argument found from time to time in the pages of *The Economist*. The argument seems to be based on the assumption of an asymmetry between the United States and Europe: while the one is relatively self-contained the other has a highly inelastic demand for American goods. In other words, exchange movements cannot be relied on to close the gap owing to the width of the movements required which would seriously affect the terms of trade of European countries.

[1] ECONOMIC JOURNAL, Vol. LVII, No. 226, p. 165.

> "Within the range that Governments will allow," it is argued, "it is very difficult . . . to see how the United States is going to purchase so much from the rest of the world as to create the supply of dollars that the rest of the world would need to pay for what it would buy from the United States if it were free to buy as much as it would like to."[1]

This is, of course, a rigorous condition to satisfy; it is doubtful whether in the past countries have been in a position to import all the goods and services that would have brought positive satisfaction. The opportunity is missed of suggesting that some very real assistance to European countries would be provided by a lowering of American tariffs, which are still on some items highly protective of American production. Instead the argument is alleged to show the need for discrimination against dollar purchases.[2] To this I return later.

Failure to secure balance-of-payments equilibrium has been attributed in the views discussed to one of the following assumptions: (i) an increase in productivity under either depressed conditions or with a serious lag in money-wage movements which induces a deflationary movement elsewhere; (ii) perverse elasticities of demand for imports with respect to income; (iii) perverse price elasticities of demand for imports. On both of the latter two calculations are liable to a wide margin of error. For what it is worth it may be noted that for (ii) during the 1930s the United Kingdom's elasticity was less than that of the United States, being 0·83 and 0·96 respectively.[3] But whatever these magnitudes may be, they do not determine the measure of reliance that may be put on exchange-rate changes for dealing with balance-of-payments deficits. The magnitude of the price elasticity of demand for imports is crucial in this respect. It is fashionable to quote relatively low values for this elasticity.[4] This is not the occasion to examine the statistical methods hitherto employed in these calculations, but it should be borne in mind that for the recent periods normally taken one would expect to find price changes in some cases relatively ineffective in determining the volume and direction of trade. And this for the simple reason that when trade

[1] Vol. CLV, No. 5471, p. 5.

[2] On its attitude to the American tariff see the issue of December 4, 1948, pp. 750–1.

[3] See *Review of Economic Statistics*, Vol. XXVII, pp. 156–70 and Vol. XXXV, pp. 418–30.

[4] See *Review of Economic Statistics*, Vol. XXVII, p. 4, where the United States elasticity of demand for imports is put at −0·5 and ECONOMIC JOURNAL, Vol. LVI, No. 222, p. 197, where the United Kingdom elasticity of demand for imports is calculated to be −0·59.

is subject to important quantitative and exchange controls the extent to which country A's exports may be substituted for those of country B is necessarily circumscribed.[1] In a world largely cleansed of these limitations their effectiveness would necessarily be greater. It may be asked also whether those who deny the efficacy of depreciation would not support appreciation. Would the United Kingdom's external balance have been worsened after 1925 if a lower sterling-dollar rate had been fixed ?[2] It might, of course, be urged—as indeed Dr. J. J. Polak has[3]—that while depreciation will generally correct a price disequilibrium it will only correct a "structural disequilibrium," due, for example, to a shift of demand, by passing on the disequilibrium to other countries, which they, in turn, have to cope with. It is true that the initial use of exchange depreciation might involve secondary exchange movements elsewhere. But there is no inevitability about the conclusions that Dr. Polak comes to, namely, that for structural disorders exchange depreciation is to be avoided. In the first place, it is difficult to agree with the sharpness of the distinction between price and structural maladjustment; a changed price relationship would contribute to the movement of resources necessary to regain structural equilibrium. In the second place, even if the shortcomings of exchange movements were accepted it would not inevitably follow that alternative methods were preferable without examining the full implications of these alternatives. It is not clear how these secondary repercussions of exchange-rate changes, which Dr. Polak perhaps exaggerates, are really avoided by direct import restrictions. In fact, if the import cuts are concentrated on a few items the secondary repercussion on particular countries may well be much more severe than if the reduction were spread among imports for which demand is elastic through an exchange movement.

This leads to the question of discrimination. Its examination is germane to our subject. Sir Hubert Henderson declared in the course of a brilliant survey of the background and implications of the Report of the Committee of European Economic Co-operation[4]

[1] Furthermore, it may be expected that the full effect of a price change will not be immediately apparent. It will take time for it to have its full effect. Allowance for such a lag has not been made in all calculations; the relatively small effect of the relative price change is therefore not surprising.

[2] No evidence has yet been produced to suggest that the U.K. was confronted with a kinked demand curve for her exports. This appears to be the only way of supporting neither depreciation nor appreciation.

[3] "Exchange Depreciation and International Monetary Stability," *Review of Economic Statistics*, Vol. XXIX, No. 3.

[4] "The European Economic Report," *International Affairs*, Vol. XXIV, No. 1.

that "So long as there is this lack of balance between America and Europe, the principle of non-discrimination on which American policy seeks to base the code of rules which is to govern future commercial policy is obviously quite inappropriate" (p. 25). This thesis is fast becoming part of current orthodoxy and has led to the inclusion of the scarce-currency clause in the Bretton Woods Agreement and to Article 23 in the Charter of the proposed International Trade Organisation.[1]

The arguments have the merits of sounding like good common sense. They are put in either of two forms. Discrimination is alleged to permit the wisest use of dollars because it permits countries to concentrate their use on goods which the dollar area can alone supply and enables purchases of goods which other areas can supply, perhaps at a somewhat higher price, to be bought elsewhere.[2] It is also argued that it would be foolish to cut out all imports of, say, tobacco because dollars were not available to purchase American tobacco. Strict adherence to non-discrimination would, it is urged, merely generalise the difficulties of trade with dollar countries to non-dollar countries without any compensatory advantage being gained. But it is to be doubted whether the superficial attractiveness of this argument is not a snare and a delusion.

Suppose we find ourselves importing more from America than current earnings of dollars can cover. Import restrictions are applied to reduce the volume of imports to what can be covered out of current dollar receipts. Purchases are switched elsewhere, and the countries enjoying the increased trade have an export surplus with England. The surplus is not convertible into dollars, and these countries are unlikely to wish to accumulate sterling balances for long. If they are prepared to take in exchange the goods available in England, the increased purchases can continue without any change in the use of productive resources in England. If they wish to use the extra sterling earnings on goods not currently available in England, either the switch of purchase will prove abortive or else the appropriate changes must be brought about in England's export trades. It may reasonably be claimed that if the diversion of purchases is at all considerable some changes in the character of English exports will be required. It is clear therefore that temporary and short-term expedients would not necessarily avoid changes in the character of export production. Yet even if this is not necessary it should be noted that nothing

[1] Exceptions to the rule of non-discrimination in the transitional period.
[2] Sir Hubert Henderson, *loc. cit.*, p. 25.

happens to improve England's long-term dollar position; on the contrary the diversion avoids the issue entirely. In either event, whether they avoid this movement or not, they would do nothing to remove the cause of the initial dollar deficit. The discrimination would persist. Suppose that discriminatory import restrictions are not resorted to. The initial dollar deficit leads to a cut in imports from all sources. There is a bigger fall in the volume of trade than takes place under the discriminatory policy. Again, however, the test of such a policy is not wholly the immediate but, in part, the longer-run consequences. If the resources freed can be used to provide either exports to the dollar area or substitutes for imports from the dollar area then the dollar deficit is improved. Only in those cases, probably few in number, where the resources that would be freed by non-discriminatory import restrictions could find no uses that would contribute directly or indirectly to the reduction of the dollar deficit is there a case for discriminatory import restrictions.

It is undeniable that by discriminatory devices the restriction or world trade is minimised, although even here some adherents of the new idea appear to go over far. Thus Professor Frisch's subtle schemes [1] for bringing about equilibrium in every country's balance of payments with the minimum reduction in the overall volume of trade might if strictly applied require some countries to forgo highly desirable imports obtained from one source rather than less essential imports obtained from elsewhere. Furthermore, nothing whatsoever, it seems, is to be done to remedy the underlying cause of the initial imbalance. This appears to be accepted, and the use of matrices keeps the damage to a minimum. So that if a start were made to direct trade on these principles the initial unbalance is accepted and adjustments in trade balances made on that basis.

If the policy was rather to accept the need for discrimination only in cases either where there was no alternative dollar or dollar-saving use for the resources or where particular hardship would be caused, then there would be a real possibility that the structural changes necessary to repair the external imbalance would be put in hand. In the absence of this adjustment, which no doubt, like most adjustments, would be somewhat painful, the need is postponed and increasingly focused on the direct-trading

[1] See his articles "On the Need for Forecasting a Multilateral Balance of Payments" (*American Economic Review*, Vol. XXXVII, No. 4) and "The Problem of Multi-compensatory Trade" (*The Review of Economics and Statistics*, Vol. XXX, No. 4).

relationships of the countries concerned and the surplus countries, *i.e.*, of Europe with America. Trade between Europe and other continents might increase, and the problem of paying for goods European countries would like to buy from America would remain as intractable as ever. The dollar shortage might, indeed, become chronic because the structural changes necessary for a movement towards external balance have been impeded by policies aimed at maintaining the volume of trade in the immediate period. Unfortunately the price of the latter appears to be the acceptance of the initial cause of imbalance.

(iii) *A European Customs Union*

The purposes of closer European co-operation should be to facilitate this change in trading relationships and to do so within the framework of Bretton Woods and the proposed International Trade Organisation. It has been suggested that the arrangements for European co-operation might take one of several forms—federation, customs union, bilateral agreements. I do not wish to examine the federal form at this place. Apart from doubts about its political feasibility at the present time, I feel that it is not required as a framework within which to solve the economic purposes mentioned. It may be noted that those economists who, in the past, have been among its strongest champions have not been primarily concerned with its economic merits. "It would be wrong to say," Professor Robbins has told us,[1] "that economic advantage was the *raison d'être* of federation; the *raison d'être* of federation is the preservation of justice and civilization; and justice and civilization involve much more than economic advantage." And it is pertinent to note also that the freer trade within the American federal system has been brought about with enormous cost in terms of the restraint of external trade.

Nor am I convinced that the widespread belief in a customs union is well founded. By a customs union is to be understood an arrangement whereby trade barriers are eliminated between members and a uniform system of trade barriers applied to trade with non-members. Doubts concerning this form of co-operation come from three directions. The first concerns the level of tariffs in the new customs union. According to Article 44 of the charter of the proposed International Trade Organisation, the duties and other regulations of trade imposed by the customs union "shall not on the whole be higher or more restrictive than the general

[1] "Economic Aspects of Federation," in *Federal Union*, edited by M. Chaning-Pearce (Cape, 1940, p. 167).

incidence of the duties and regulations applicable prior to the formation of such union." Even if this were strictly followed it does not imply that in all cases trade would flow more in accordance with comparative advantage than it did under the former regime of uniform protective tariffs. This is so because imports which surmount a uniform tariff barrier have, in the absence of subsidisation or dumping, been produced in the country outside the protected area where conditions are economically most advantageous. If the tariff is not uniform, the production of these goods may for this reason be diverted to countries within the new group where conditions are less suitable. Far from correcting a maldistribution of resources the customs union might in this way add to the maldistribution.[1] This would hold *a fortiori* if the formation of the customs union involved an increase in the general level of trade barriers with non-member countries. Quite apart from any tendency on the part of the new group to raise tariffs in order to gain a terms-of-trade advantage at the expense of the rest of the world, the level of obstructions might be raised in the case where the members of the group have initially markedly different tariff levels. In such a case the I.T.O. rule would put on the high-tariff countries a burden of readjustment which they would be likely to accept, if at all, only on the assurance of large compensating advantages and the assumption that later accessions to the group would not involve further major changes. In Western Europe this position presents itself. France is highly protectionist, particularly in agriculture. It would require a sizable diversion of resources in France from their existing uses if she joined a customs union whose general level of tariffs approached that of the average level for the whole of Western Europe.[2]

In the second place, the formation of a customs union would involve agreement not only on tariffs but also on the use of quantitative controls, otherwise any prospect of an increase of trade resulting from the lowered tariffs might well fail to be realised. The possibility that trade between members might at any time be restricted by quantitative trade controls would in any case deter investment in projects which would require a large free-market area for their economic working. It is not useful to suggest that the use of these methods be forbidden after their acceptance under Article 23 of the charter of I.T.O. Nor is it

[1] Cf. Jacob Viner, "The Most-Favoured-Nation Clause in American Commercial Treaties," *Journal of Political Economy*, Vol. XXXII, No. 1, pp. 107–8.

[2] Cf. Charles Bettelheim, *Bilan de l'économie française 1919–1946* (Presses Universitaires de France, 1947, especially pp. 170–7).

simple to transfer the power to apply them to the central customs-union authority. On the one hand, it is not clear that under the present agreements quantitative controls might be applied on balance-of-payments grounds outside areas having a common quota in the International Monetary Fund; presumably the customs-union group would not be merged to this extent at least at inception. Quotas might be imposed therefore only on the trade of those countries in the group in balance-of-payments difficulties. On the other hand, if the central authority had the right to veto the imposition of quotas by one member country on the trade of another member country it would require to have at its disposal alternative means of coping with the imbalance in trade. In the short run this might involve the use of gold and other exchangeable reserves; in the longer run it might require the adoption of new exchange rates. In order therefore to remove the threat of quantitative restrictions on the trade of member countries the central authority in the customs-union group would require not merely the right to forbid the use of such restrictions within the group but also the power to induce the necessary changes in exchange policy to terminate the cause of the exchange pressures within the group. If this be so, it is clear that under modern conditions the text-book examples of past customs unions are out of date. If this method is to be applied at all it must be on an entirely new basis. A customs union would require apart from agreement on tariffs the means to maintain equilibrium in the balance of payments within the group without the use of quantitative measures. This would imply the possession of liquid reserves by the central authority and the willingness to use them conditionally—on condition that a suitable exchange-rate policy were adopted. These implications may not be acceptable to all prospective member countries. If they are accepted it involves a willingness to accept decisions on trade policy taken by a regional group on which each country is necessarily in a minority position.

In the third place, the commercial and other ties between the United Kingdom and other Commonwealth countries presents a further obstacle. Unless there was a major change in their policies of industrial development Commonwealth countries would not be likely to join the group under discussion, because the main competitors with many of their secondary industries are to be found among the countries of Western Europe. Furthermore, some Commonwealth countries would not share the wish of European countries to reduce dependence on the United States. The obvious cases are Canada and, owing to gold, South Africa,

although Australia might also perhaps be found in this group. The question arises, therefore, whether the United Kingdom could be a member of both the Western European group and of the Commonwealth group at the same time. The elimination of barriers to the movement of goods between members of the Western European group would put Commonwealth suppliers at a disadvantage in the United Kingdom market. Even if the United Kingdom unilaterally granted free entry to Commonwealth goods in the United Kingdom it would involve the elimination of the preference on Commonwealth foodstuffs compared with Dutch and Danish supplies, and it is not to be expected that other European countries would feel called upon to make a similar one-sided concession.[1] And if the United Kingdom felt called upon to bring tariffs on Commonwealth goods into line with those of member countries of the customs union she would further be required to reduce duties on United States goods so that the margin of preference would not be raised as between Commonwealth and American imports. Existing United Kingdom undertakings respecting the margin of preference would therefore appear to make the problem of her membership of both a European group and a Commonwealth group virtually insoluble. The general problem would persist even if the present tariff-reducing powers of the United States were fully used to eliminate preferences, for these powers are certainly not adequate to bring about the complete dismantling of the whole system.

It has been suggested [2] that the position might be covered by

[1] As the preference was negotiated on a reciprocal basis, the Dominions would legitimately reduce preferences on United Kingdom goods if European supplies were granted equal treatment.

[2] By R. F. Harrod, *Lloyds Bank Review*, July 1948. It may be noted that on occasion in the past customs-union arrangements have permitted individual members to adhere to separate commercial arrangements with non-members. Thus the South African Customs Union Convention of 1903 permitted Southern Rhodesia to grant rebates on goods imported from any British territory. There have also been a few cases of partial customs unions under which members have retained their tariff autonomy. According to the United Nations report, *Customs Unions* (pp. 60–1), "Of these that between Norway and Sweden in the nineteenth century had the longest life. Tariff autonomy was rendered possible by the fact that the exemption from duty only applied to indigenous goods; imported goods were liable to duty, though at one stage in the arrangement between Norway and Sweden foreign goods entering into one of these countries from the other, if they had paid the standard rates in the country which they entered first, paid only half the rate of duty in the second. The provision was not one which was likely in many cases to render indirect import advantageous. But difficulties did arise about determining whether goods were or were not indigenous products. The partial union permitting customs autonomy was facilitated by the facts, that, first, for a time all frontier trade in foreign goods was prohibited, and secondly, even when this prohibition was abrogated, communications by land

an arrangement which involved on the one hand the elimination of duties as between members and on the other hand freedom of applying any level of tariffs on goods coming from outside. The United Kingdom could therefore charge what duties she pleased on Commonwealth goods subject to her undertakings to the United States respecting the margin of preference. This is a possible solution. Provision would have to be made for the separation of United Kingdom goods imported into Europe from the re-export of Commonwealth goods to Europe. On the one group no duties would be levied, whilst on the other European countries would levy duties as if the goods were directly imported from the Commonwealth countries concerned. To be complete it would also be necessary to permit European countries to levy duties on United Kingdom exports which have been made possible by the import of Commonwealth goods. Thus it would not be sufficient to separate for tariff purposes United Kingdom machinery and Canadian wheat exported from the United Kingdom. It would also be necessary to separate from the free-entry goods English wheat whose export to Europe had been made possible by substitution in England of Canadian wheat. For some items of export the extent of substitutability of the English product for the free-list Commonwealth product might be significant. A schedule comprising such items would have to be agreed.

(iv) *Methods of Economic Co-operation in Western Europe*

Quite apart from these problems, under existing conditions the attempt to negotiate a customs union is fraught with difficulty at every point. No one who has watched the negotiations between the Belgo–Luxemburg Union and the Netherlands will either underestimate the difficulties or exaggerate the benefits over the next few years. Apart from difficulties due to disparities in price levels and structures, excise duties and the like, agreement has been necessary on the extent of State control in economic affairs. The Dutch have undertaken gradually to abandon much of their policy of control in favour of freer market conditions.[1] A Western European Union would be vastly more complicated. But other methods promise quicker and fuller benefits; tariffs

remained very defective. When the railway between Stockholm and Oslo was opened the administration of the whole system was rendered much more difficult, and the partial union came to an end in 1897."

[1] Details may be found in the report of the Sub-committee on France and the Low Countries of the U.S. House of Representatives Select Committee on Foreign Aid, *The Belgium–Luxemburg–Netherlands Customs and Economic Union* (Government Printing Office, Washington, 1948).

are by no means the principal impediments to inter-European trade. The methods which would more fully serve the purposes of European economic co-operation include the following three.

Firstly, it is highly desirable that the fullest use is made on the basis of co-operative efforts of Europe's resources which require for their economic development initially large capital outlays and which would produce outputs too large for use in the country in which they are located. What I have in mind may perhaps best be shown by reference to the *General Report* of the C.E.E.C. It was estimated that there was a deficit of electric power of some 17%. This deficit would take time to make good, and in the meantime other developments would be held back and demands on coal increased. To correct the position as swiftly and as economically as possible an International Programme was drawn up. This envisaged the erection of nine main installations. Of these, five would be in Italy (four hydro-electric and one geothermic), one served by the Rhine on the Franco-German frontier, one situated in Austria but served by water from Switzerland and Italy and two in Western Germany (brown coal). It was declared : " The installations have by unanimous agreement been selected on a purely economic basis and without regard to national frontiers. Thus, some of the stations will supply electricity mainly to countries other than those in which they are situated. The International Programme, therefore, involves the co-operative development of national resources by the participating countries and Western Germany " (p. 50). The pre-requisites for this type of development are thus the need to operate on a large scale and the willingness of participating countries to become more interdependent. This latter is an important consideration because the developments involve capital industries which may well be essential to a country's war potential. The willingness to locate and extend plant on economic grounds does consequently presuppose that there is no conflict with military considerations. A limiting factor in Western Europe would therefore be the composition of the group which is prepared to pool and co-ordinate defence measures. This form of co-operation is particularly attractive at a time when there prevails in all the countries concerned a severe pressure on resources available for capital projects.

Secondly, there is every reason that co-operative efforts should not be confined to productive processes involving the use of large fixed plant. It is desirable that production should be located wherever comparative advantage is greatest. There would be difficulty in the removal of the protective shelter behind which

some European industries and much of European agriculture has grown if it meant that resources, some possibly highly specific, were suddenly subjected to fierce competition. But a method might be devised to ease the transition. Supposing there had been another bout of tariff reductions on a multilateral basis such as took place in Geneva in October 1947. Supposing this meant that certain United Kingdom protected trades lost an essential part of their protective support. If this were combined with the offer of financial assistance for those factors that could only in time and at some cost transfer elsewhere the changed use of resources might well come about quickly and without antagonising the interest affected.[1] On the one hand there might be a Development Fund subscribed by participating countries and available for approved transfers of resources resulting from tariff reductions. On the other hand there might as occasion required be the encouragement of particular developments by the negotiation between two or more countries of preferential treatment for the products of the industries concerned. This would be compatible with the obligations involved in joining the proposed International Trade Organisation. Under Article 15 new preferential agreements are permitted in the interests of programmes of economic development or reconstruction. Such preferences would be limited to an initial ten-year period with the possibility of a maximum extension for a further five years.

Thirdly, it would appear that much valuable though somewhat undramatic co-operative effort might be focused on the question of improving the speed and eliminating avoidable costs in the movement of raw materials and the distribution of goods within Europe. There is a compelling case for developing an interconnected network of navigable waterways and roads on an international rather than a national basis.

To what extent efforts such as these [2] will require to be backed up at some point with a new structure of exchange rates in Europe remains to be seen. This in part depends on the efforts made by European countries, but in part also on the way in which the United States balance-of-payments position is expected to move.

[1] Cf. G. C. Allen, "An Aspect of Industrial Reorganisation," ECONOMIC JOURNAL, Vol. LV, p. 218–19.

[2] It would appear that no more than this is strictly required under the Economic Co-operation Act. "As a method of legislative interpretation," according to Mr. Finletter, the representative in the United Kingdom of the U.S. Economic Co-operation Administration, "there can be no question that the words 'economic co-operation' mean economic co-operation, and nothing else." (*International Affairs*, Vol. XXV, No. 1, p. 5.)

It is highly desirable that after considering the proposals made by European countries for coping with their balances the United States Administration should produce a forecast of their own international economic position and its implications. This would provide valuable guidance to European countries in their working out of ways and means of closer co-operation.

D. J. Morgan

London School of Economics.

CHANGES IN LEVEL AND DIVERSITY OF EMPLOYMENT IN REGIONS OF GREAT BRITAIN, 1939–47

A COMPARISON between the years 1939 and 1947 immediately shows that the concentration of industrial employment in the London and South-eastern Region has somewhat diminished, and that regions with a smaller industrial potential, like the East, South, South-west, North of England, and Wales, have correspondingly gained. A less obvious feature is the apparent fact that the degree of industrial specialisation has diminished in every single region. A low degree of specialisation in this context means the same as a high degree of diversity. We can therefore equally well say that industrial diversity is greater in 1947 than in 1939. This conclusion has been based on a measure of specialisation in each region, evolved by this writer in a previous study entitled " Industrial Specialisation in Scotland and in regions of England and Wales "[1] and mainly devoted to inter-regional comparisons. The present paper is chiefly concerned with the changes between 1939 and 1947 in each region, which are analysed further.

As in the previous study, the basic figures used are the numbers of persons insured under the general schemes (excluding banking and insurance, for which no regional figures are available) by industry in each of eleven regions, as given by the Ministry of Labour, in the *Tables relating to employment and unemployment in Great Britain* (H.M.S.O., 1947 and 1948). With the exception of the first table, figures for employed persons only have been used. The industry figures have been combined into twenty-five groups, which were chosen as in the previous study; the grouping is roughly, though not exactly, the same as that adopted by the Ministry of Labour for its broad grouping. The differences are that the Ministry of Labour groups " Non-metalliferous Mining Products " and " Brick, Tile, Pipe, etc." have been combined; so have the Ministry of Labour groups " Pottery, Earthenware, etc." and " Glass "; whilst " Miscellaneous Services " has been subdivided, so as to show government service separately. The resulting twenty-five groups are listed in Tables IV and XI.

As a first step to this analysis, figures for the additional year

[1] Cf. *Yorkshire Bulletin of Economic and Social Research*, Vol. 1, No. 1, pp. 19–30.

1945 have been introduced; the figures in each of the three years are based on July. Thus, the period 1939–47 is divided into two parts, the first being one of war-time changes, and the second one of post-war reconversion. July 1947 can be said to mark, approximately, the end of the immediate post-war period; the problems of absorbing the bulk of the Forces into industry and the switch over from war-time to peace-time needs had, by that time, been largely solved. This does not mean to say that the industrial structure of Britain in 1947 is ideal; but changes after that date should follow the more long-term needs of the country and thus belong to a new phase of development.

The first table given here provides a basis for deducing the absolute and relative changes in the totals of insured persons in each region between the three dates.

TABLE I

Region.	Total insured persons in each region.					
	Number (000).			% of Great Britain.		
	1939.	1945.	1947.	1939.	1945.	1947.
London and South-east	3,760	2,861	3,492	23·99	21·23	22·71
East	750	676	781	4·79	5·02	5·08
South	642	619	697	4·10	4·59	4·53
South-west	751	698	784	4·79	5·18	5·10
Midlands	1,527	1,378	1,500	9·74	10·22	9·76
North Midlands	1,084	956	1,065	6·92	7·09	6·93
East and West Ridings	1,457	1,241	1,399	9·30	9·21	9·10
North-west	2,376	2,009	2,268	15·16	14·91	14·75
North	951	899	1,001	6·07	6·67	6·51
Wales	696	678	731	4·44	5·03	4·75
Scotland	1,677	1,463	1,658	10·70	10·85	10·78
Great Britain	15,671	13,478	15,376	100·00	100·00	100·00

The first three columns show that the net effect of the call-up on one hand and the absorption of manpower reserves into industry on the other hand was to reduce, by 1945, the total of insured workers by 2·2 million. By 1947 the reverse movement increased the total by 1·9 million, leaving it at little below the pre-war level. The reduction and subsequent expansion in the labour force was felt in each region, though not to the same extent. In the East, the South, the South-west, the North of England and in Wales the total of insured persons is actually higher in 1947 than in 1939; in the remaining regions, particularly the London and South-east, it is lower.

The last three columns show that the London and South-eastern Region lost a substantial part of its share of the insured population during the War, but had partly regained it by 1947. The share of the Ridings and of the North-west fell slightly but steadily, whilst that of the East steadily increased. The remaining regions had relative gains during the War, but kept only part of their gains.

Using figures for employed instead of total insured persons, we obtain the following picture.

TABLE II

Region.	Total insured employed in each region.					
	Number (000).			% of Great Britain.		
	1939.	1945.	1947.	1939.	1945.	1947.
London and South-east	3,574·4	2,843·5	3,425·9	24·68	21·32	22·90
East	713·9	672·7	767·4	4·93	5·05	5·13
South	623·0	615·3	685·3	4·30	4·61	4·58
South-west	721·2	693·2	767·5	4·98	5·20	5·13
Midlands	1,445·7	1,367·4	1,478·4	9·98	10·26	9·88
North Midlands	1,014·6	952·3	1,051·2	7·00	7·14	7·03
East and West Ridings	1,340·9	1,230·0	1,371·1	9·26	9·22	9·17
North-west	2,116·3	1,993·8	2,197·7	14·61	14·95	14·69
North	833·6	879·4	956·4	5·75	6·60	6·39
Wales	597·4	652·6	677·7	4·12	4·89	4·53
Scotland	1,504·4	1,434·1	1,581·3	10·39	10·76	10·57
Great Britain	14,485·4	13,334·3	14,959·9	100·00	100·00	100·00

Owing to the virtual abolition of unemployment during the War, the fluctuations in total employment are far smaller than those in the total insured labour force. Employment during the War fell by 1·1 million for the country as a whole and subsequently expanded by 1·6 million, so that it is at a higher level in 1947 than in 1939, in spite of a smaller number of insured persons. The North of England, and Wales, did not share the war-time fall in employment but expanded steadily; of the remaining regions, the London and South-east is the only one that has not, by 1947, exceeded its pre-war level.

The relative changes in employed are broadly the same as those in insured persons. Main exception is the North-western Region, which on the present basis has gained, not lost, during the period 1939–45 and on balance over the period 1939–47. The Midlands Region, on the other hand, shows on balance over the period 1939–47, a loss instead of a slight gain. But on the whole,

the changes in the regional share of employed persons are accompanied by similar changes in the share of insured persons and can therefore only to a minor extent be explained by the reduction in registered unemployment.

The next table is to show changes in diversity, measured by the coefficient of specialisation for each region. The coefficient, as defined, can be obtained by comparing the employment distribution over the twenty-five groups of the region with that of the rest of Great Britain, and by adding all the positive differences (or the numerical value of all negative differences). It can also be obtained by comparing the employment distribution of the region with that of Britain as a whole, adding the positive differences, and applying a correction factor. This correction is not essential for comparisons between different dates, but is important for inter-regional comparisons; if the second method is used without applying a correction factor, a bias arises which will make the larger regions appear relatively more diversified, and the smaller regions more specialised, than is appropriate. The coefficient may, in theory, vary between 0, indicating that the region is perfectly diversified on the standard of the country as a whole, and 100%, indicating that the region is completely specialised and has no industry in common with the rest of the country.

TABLE III

Region.	Coefficient of specialisation (%) for each region within Great Britain, based on insured employed, in twenty-five industry groups.		
	1939.	1945.	1947.
London and South-east	24·7	22·8	22·2
East	21·2	19·7	19·3
South	26·0	23·5	23·9
South-west	20·2	21·4	18·8
Midlands	30·8	27·0	27·8
North Midlands	22·4	19·2	18·7
East and West Ridings	21·5	20·2	19·0
North-west	19·5	17·0	17·7
North	25·5	24·3	21·4
Wales	35·0	29·4	24·6
Scotland	10·8	11·3	10·2

The table shows that the decline in specialisation, or increase in diversity, which took place in each region between 1939 and 1947, did not take place simultaneously. It appears to be entirely due to war-time changes in the South, the Midlands and the North-west; and mainly so, in London and South-east, the East and the

North Midlands. On the other hand, the post-war period appears to be entirely responsible for the increase in diversity in the case of the South-west and of Scotland, and chiefly responsible in the case of the North of England. The small change in the Ridings and the large change in Wales are divided about evenly between war-time and post-war periods.

Since the value of the coefficient of specialisation depends on the industrial grouping on which it is based, the significance of the results given here, as well as the following analysis, is somewhat limited by the fact that regional differences and changes over time within industrial groups are not taken into account here. Nevertheless, it is felt that the industrial grouping adopted here has a sound economic meaning, and the results based on it are useful in giving a broad picture.

TABLE IV

Industry group.	Insured employed in Great Britain in each industry group.				
	Number (000).			Index (1939 = 100).	
	1939.	1945.	1947.	1945.	1947.
Agriculture	545·2	630·8	644·1	115·7	118·2
Fishing	27·4	10·7	24·5	39·1	89·2
Mining	866·8	782·1	804·8	90·2	92·9
Bricks, Cement, etc.	159·0	80·7	137·6	50·8	86·5
Pottery and Glass	116·8	83·5	120·7	71·5	103·4
Chemicals, etc.	273·4	416·5	327·9	152·3	119·9
Metal Manufacture	318·8	350·4	357·0	109·9	112·0
Engineering	941·9	1,412·6	1,220·5	150·0	129·6
Vehicles	541·2	928·3	644·4	171·5	119·1
Shipbuilding	141·7	247·0	209·4	174·4	147·8
Miscellaneous Metal Industries	780·4	783·1	903·6	100·3	115·8
Textiles	1,009·6	602·3	747·1	59·7	74·0
Leather	74·2	49·7	69·4	66·9	93·5
Clothing	626·1	389·3	514·8	62·2	82·2
Food, Drink, Tobacco	601·5	461·8	546·4	76·8	90·8
Woodworking	244·0	180·7	240·4	74·1	98·5
Paper, etc.	480·4	266·4	393·7	55·5	82·0
Miscellaneous Manufacturing	225·8	200·4	272·8	88·7	120·8
Building and Civil Engineering	1,206·3	632·8	1,139·9	52·5	94·5
Gas, Water, Electricity	216·3	164·9	230·5	76·2	106·6
Transport	815·9	923·7	1,045·2	113·2	128·1
Distribution	2,189·8	1,436·5	1,746·1	65·6	79·7
Commerce and Finance	117·7	65·0	93·9	55·2	79·7
Government Service	645·6	1,265·1	1,257·9	196·0	194·8
Miscellaneous Services	1,319·6	970·0	1,267·3	73·5	96·0
All Industries	14,485·4	13,334·3	14,959·9	92·1	103·3

To take the analysis one step farther, the changes in the industrial structure of each region may be considered to consist

of two components. First, the industrial structure of Great Britain as a whole has changed; secondly, the geographical distribution of employment within each industry group has shifted. The problem will be to separate the effects of the two factors on level and diversity of employment in each region.

The changes in the employment structure of Great Britain as a whole are given in Table IV. In interpreting these figures it must be remembered that they are based on insured workers only, and the changes shown here do not accurately reflect changes in manpower for each industry group.

An interesting feature in this table can be brought out if the information is summarised by combining "Agriculture," "Fishing" and "Mining" into a broad group "Primary production," the fifteen groups from "Bricks, cement, etc." to "Miscellaneous manufacturing" into "Manufacturing" and the seven groups from "Building and civil engineering" onwards into "Services," as in Table V.

TABLE V

Broad group.	Insured employed in Great Britain in each broad group.				
	Number (000).			Index (1939 = 100).	
	1939.	1945.	1947.	1945.	1947.
Primary production	1,439·4	1,423·6	1,473·4	98·9	102·4
Manufacturing	6,534·8	6,452·7	6,705·7	98·7	102·6
Services	6,511·2	5,458·0	6,780·8	83·8	104·1
All Industries	14,485·4	13,334·3	14,959·9	92·1	103·3

The service trades, naturally, have suffered the severest wartime contraction, followed by the most rapid post-war expansion. But it is surprising to see that the expansion rates of the three groups, over the whole period 1939–47, are so similar. The main changes in industrial structure can thus be said to have taken place within each of the broad groups. For example, as seen from Table IV, agriculture has gained, but mining has lost; the metal trades have gained, and the main consumer goods industries have lost; government service has gained, and distribution has lost.

Table IV can also be used as a basis for a broad classification of the industry groups into four categories, according to the changes in employment which took place in the periods under

consideration. The categories, and the groups falling into each of them, are as follows :—

I. *War-time expansion, partly offset by post-war contraction :* Chemicals, etc.; Engineering; Vehicles; Shipbuilding; Government service (5 groups).

II. *Steady expansion :* Agriculture; Metal manufacture; Miscellaneous metal industries; Transport (4 groups).

III. *War-time contraction, more than offset by post-war expansion :* Pottery and glass; Miscellaneous manufacturing; Gas, water, electricity (3 groups).

IV. *War-time contraction, partly offset by post-war expansion :* Fishing; Mining; Bricks, cement, etc.; Textiles; Leather; Clothing; Food, drink, tobacco; Woodworking; Paper, etc.; Building and civil engineering; Distribution; Commerce and finance; Miscellaneous services (13 groups).

This classification conceals differences in individual expansion or contraction rates which are, in some cases, quite wide; nevertheless, it is useful for giving a broad picture. There is no industry group in which there has been a decline in employment both in war-time and in the post-war period; nor is there a case of a post-war contraction more than offsetting a war-time expansion. According to definition, employment expanded between 1939 and 1945 in categories I and II; between 1945 and 1947 in categories II, III and IV; on balance between 1939 and 1947 in categories I, II and III.

Table VI shows the regional expansion and contraction rates in each of those categories.

Taking each of the four categories as a whole, the changes in employment are largely the same for each region as those for Britain as a whole : war-time expansion, followed by contraction in category I; steady expansion in category II; war-time contraction, followed by expansion in categories III and IV; the net result being expansion in category III and contraction in category IV. Exceptions are the London and South-eastern and the Midlands Regions, for which the increase in employment in category II industries does not start till 1945; and Scotland, which does not reach, by 1947, the 1939 level in category III industries. An outstanding feature of the table is also the high expansion rate in category I industries for Wales; it will be seen later that employment in these industries was very low for Wales in 1939.

Nevertheless, we can conclude from this table that the most important changes in the industrial structure of each region have

TABLE VI

Region.	Index of insured employed in each region (1939 = 100). Industry groups in category. I.	II.	III.	IV.	All industries.
London and South-east :					
1945	151·4	93·7	75·5	57·8	79·6
1947	140·9	113·2	106·5	79·2	95·8
East :					
1945	163·1	111·9	91·8	66·7	94·2
1947	151·6	119·9	128·4	88·2	107·5
South :					
1945	178·7	121·6	89·9	62·4	98·8
1947	152·5	133·4	113·3	87·3	110·0
South-west :					
1945	174·3	123·8	93·6	64·2	96·1
1947	149·3	131·2	119·1	86·0	106·4
Midlands :					
1945	149·1	99·3	70·7	66·3	94·6
1947	125·8	108·5	102·6	85·3	102·3
North Midlands :					
1945	171·1	112·0	92·9	71·1	93·9
1947	144·8	120·8	127·3	88·9	103·6
East and West Ridings :					
1945	154·4	116·9	89·9	71·4	91·7
1947	134·6	125·5	121·9	88·7	102·3
North-west :					
1945	181·9	120·6	80·3	66·7	94·2
1947	148·7	130·4	114·7	86·2	103·8
North :					
1945	164·8	130·1	97·1	80·2	105·5
1947	142·6	135·2	145·8	99·6	114·7
Wales :					
1945	364·9	116·7	93·8	73·0	109·2
1947	231·6	125·4	162·0	92·3	113·5
Scotland :					
1945	172·6	111·2	84·1	71·1	95·3
1947	145·3	115·7	97·2	92·0	105·1
Great Britain :					
1945	167·9	109·9	80·3	66·4	92·1
1947	143·9	119·9	111·7	86·6	103·3

been those following a common trend all over the country. We are therefore justified in concentrating on this common trend for the moment and in treating the geographical redistribution of each industry as a secondary feature, to be considered later on.

Table VII shows how far the industries in each category are represented in each region in 1939.

The figures for the Midlands differ widely from those of any other region. On the hypothesis that the geographical distribution of employment in each industry group remains unchanged, the high proportion employed in category I–III industries and the low proportion in category IV industries should bring about a

TABLE VII

Region.	Proportion of insured employed, for each region 1939 (% of total employed) in — Industry groups in category. I.	II.	III.	IV.	All industries.
London and South-east	16·6	14·9	5·0	63·5	100·0
East	17·2	22·6	3·1	57·1	100·0
South	22·6	15·6	3·0	58·8	100·0
South-west	20·1	14·8	3·1	62·0	100·0
Midlands	22·5	28·4	7·4	41·7	100·0
North Midlands	15·8	16·0	2·0	66·2	100·0
East and West Ridings	15·8	14·8	2·6	66·8	100·0
North-west	17·5	12·7	4·0	65·8	100·0
North	20·5	15·2	2·0	62·3	100·0
Wales	8·8	23·4	1·6	66·2	100·0
Scotland	16·9	16·8	3·0	63·3	100·0
Great Britain	17·5	17·0	3·9	61·6	100·0

considerably higher level of employment in 1947 than in 1939 for this region. On the other hand, the North Midlands, the East and West Ridings and the North-western Region seem to have an industrial structure unfavourable to expansion between 1939 and 1947.

TABLE VIII

Region.	Expected total of insured employed in each region (at 1939 regional distribution in each industry group). Number (000). 1939.	1945.	1947.	% of Great Britain. 1939.	1945.	1947.
London and South-east	3,574·4	3,207·5	3,700·8	24·68	24·05	24·74
East	713·9	670·4	756·8	4·93	5·03	5·06
South	623·0	606·3	672·8	4·30	4·55	4·50
South-west	721·2	681·3	760·2	4·98	5·11	5·08
Midlands	1,445·7	1,453·8	1,560·4	9·98	10·90	10·43
North Midlands	1,014·6	910·7	1,017·2	7·00	6·83	6·80
East and West Ridings	1,340·9	1,190·1	1,333·6	9·26	8·93	8·91
North-west	2,116·3	1,868·2	2,103·2	14·61	14·01	14·06
North	833·6	817·2	882·3	5·75	6·13	5·90
Wales	597·4	550·0	617·1	4·12	4·12	4·12
Scotland	1,504·4	1,378·8	1,555·5	10·39	10·34	10·40
Great Britain	14,485·4	13,334·3	14,959·9	100·00	100·00	100·00

In order to get quantitative information on this point, we have calculated the hypothetical level of employment in each region

for 1945 and 1947 at the 1939 geographical distribution in each industry group, or in other words, the employment obtained by applying national expansion and contraction rates for each industry group to all regions. Comparing the results with the actual figures for 1939, we obtain the following picture, as given in Table VIII.

The figures confirm the suppositions drawn from Table VII. In most regions we should, according to Table VIII, expect to find in 1945 a lower, but in 1947 a higher, level of employment than in 1939. Exceptions are the Midlands Region, where we should expect a gain in employment even between 1939 and 1945, and the Ridings and North-western Regions, where employment in 1947 should be slightly below 1939; in the North Midlands, the gain on balance during 1939–47 should be very slight. There should be similar changes in the shares of each region in the total employment of the country.

So far, we have studied the effect of changes in the industrial structure of Great Britain on regional levels of employment only. It will also be of interest to consider the effect of these structural changes on diversity of employment in the regions.

On superficial consideration one might believe that changes which equally affect Britain as a whole and each region do not influence the degree of specialisation or diversity; but this is not true. It must be remembered that some industries are highly concentrated in one or more regions, others are widely dispersed. If the most highly concentrated industries had expanded and the most widely dispersed industries had contracted, this would have automatically raised the coefficients of specialisation for each region; the opposite movement would have reduced them. The actual changes in the British economy are, however, a mixture of both, and we should not expect to find the same result in every region. In some regions the industries which increased in importance may have been those on which the excess or deficiency of the region is highest, and thus the coefficient of specialisation rises; in others, the opposite may be true. This is examined in Table IX.

The results are as expected. The changes in the industrial structure of Britain tended to bring about both increases and decreases in specialisation of individual regions, most of the effects being small. On the whole, the decreases predominate, particularly for the years 1945–47, but also over the whole period; this means that the highly localised industries have, on balance, somewhat lost in importance.

TABLE IX

Region.	Expected coefficient of specialisation (%) for each region (at 1939 regional distribution in each industry group).		
	1939.	1945.	1947.
London and South-east	24·7	23·4	23·0
East	21·2	21·7	21·1
South	26·0	25·7	25·0
South-west	20·2	20·7	19·9
Midlands	30·8	32·6	31·7
North Midlands	22·4	19·8	20·5
East and West Ridings	21·5	19·8	19·7
North-west	19·5	18·1	18·0
North	25·5	26·5	24·7
Wales	35·0	35·9	33·9
Scotland	10·8	11·8	11·0

This concludes our analysis of the changes in the numbers employed in various industries in Great Britain, and of their effects on level and diversity of employment in the regions. We shall now proceed to consider the changes in the regional distribution of individual industry groups, which helped to bring about, for the same industry, different rates of expansion or contraction in each region.

Some information on this point is already contained in Table VI. So far we have commented only upon the general similarity of national and regional expansion or contraction rates. If we now consider differences for individual regions from the national average, we find that the figures for the London and South-eastern and for the Midland Regions lie below those of Great

TABLE X

Region.	Number of industry groups in which the share of each region between 1939 and 1947	
	Increased.	Decreased.
London and South-east	6	19
East	15	10
South	14	11
South-west	14	11
Midlands	10	15
North Midlands	16	9
East and West Ridings	19	6
North-west	20	5
North	23	2
Wales	21	4
Scotland	14	11

Britain for each category and for both years. For the remaining regions, the figures lie above the national average in most cases. Thus, there appears to have been a shift from the London and South-east and the Midlands towards the other regions.

This view is confirmed by a look at the figures contained in Table X.

The London and South-eastern and the Midlands Regions are the only ones which gained, relatively to Britain as a whole, in fewer industry groups than they lost. The highest number of gains is found in the North of England, followed by Wales, the North-west and the Ridings. We can therefore speak of London and South-east and the Midlands as "generally losing," the remaining regions as "generally gaining." Table XI is based on this classification.

TABLE XI

Industry group.	Share of "generally gaining" regions (all except London and South-east, Midlands) in employment in each industry group (% of employment in Great Britain).		
	1939.	1945.	1947.
Agriculture	81·5	80·8	80·2
Fishing	99·2	99·4	99·6
Mining	90·2	90·5	90·4
Bricks, Cement, etc.	70·1	74·8	73·0
Pottery and Glass	32·9	43·0	38·3
Chemicals, etc.	64·7	78·5	70·4
Metal Manufacture	75·7	75·4	75·9
Engineering	66·4	67·2	67·6
Vehicles	51·7	62·9	59·6
Shipbuilding	91·0	91·3	89·7
Miscellaneous Metal Industries	38·6	44·5	44·9
Textiles	92·6	93·5	93·3
Leather	50·9	62·5	59·6
Clothing	66·2	71·6	70·4
Food, Drink, Tobacco	65·1	71·6	69·9
Woodworking	56·4	64·6	61·4
Paper, etc.	54·4	57·7	58·1
Miscellaneous Manufacturing	48·1	50·7	49·4
Building and Civil Engineering	67·0	56·4	65·2
Gas, Water, Electricity	58·2	61·1	61·9
Transport	64·8	71·2	67·6
Distribution	61·4	68·0	65·9
Commerce and Finance	43·7	48·1	42·0
Government Service	64·6	63·6	62·8
Miscellaneous Services	56·6	61·6	60·7
All Industries	65·3	68·4	67·2

The table shows that the "gaining" regions increased their average share of employment from about 65 to 68% during the War, but the post-war period again reduced it to 67%. The gains

were not evenly spread over the different industries. On the whole, the largest gains are in those industrial groups for which the share was low in 1939 and still low in 1947, like Pottery and Glass, Vehicles, Miscellaneous Metal Industries, Leather, Woodworking, Paper, etc., Miscellaneous Services. The industry groups in which the nine regions have the highest shares both in 1939 and in 1947, like Agriculture, Fishing, Mining, Shipbuilding, Textiles, show only a slight increase, or an actual decrease, in the share of those regions. Thus, the geographical redistribution of industry has worked towards greater diversity.

The effect of this redistribution of industry upon total employment in the regions can be deduced from Tables II and VIII. By taking the difference between actual and expected figures, we obtain the changes due to redistribution for the periods 1939–45 and 1939–47, and thus indirectly for the period 1945–47; they are given in Table XII. Furthermore, for 1939–47, the table gives the effect on employment of changes in industrial structure, and the actual changes in employment, which are brought about by both factors working together. Table XIII gives the same information for changes relative to Britain as a whole, instead of absolute changes.

TABLE XII

Region.	Changes in total number of insured employed in each region (000).				
	Due to regional redistribution in each industry group.			Due to changes in industrial structure of Great Britain.	Actual.
	1939–45.	1945–47.	1939–47.	1939–47.	1939–47.
London and South-east	−364·0	+ 89·1	−274·9	+126·4	−148·5
East	+ 2·3	+ 8·3	+ 10·6	+ 42·9	+ 53·5
South	+ 9·0	+ 3·5	+ 12·5	+ 49·8	+ 62·3
South-west	+ 11·9	− 4·6	+ 7·3	+ 39·0	+ 46·3
Midlands	− 86·4	+ 4·4	− 82·0	+114·7	+ 32·7
North Midlands	+ 41·6	− 7·6	+ 34·0	+ 2·6	+ 36·6
East and West Ridings	+ 39·9	− 2·4	+ 37·5	− 7·3	+ 30·2
North-west	+125·6	− 31·1	+ 94·5	− 13·1	+ 81·4
North	+ 62·2	+ 11·9	+ 74·1	+ 48·7	+122·8
Wales	+102·6	− 42·0	+ 60·6	+ 19·7	+ 80·3
Scotland	+ 55·3	− 29·5	+ 25·8	+ 51·1	+ 76·9
Total increases	+450·4	+117·2	+356·9	+494·9	+623·0
Total decreases	−450·4	−117·2	−356·9	− 20·4	−148·5
Balance	—	—	—	+474·5	+474·5

TABLE XIII

Region.	Changes in share of each region in total of insured employed (% of Great Britain).				
	Due to regional redistribution in each industry group.			Due to changes in industrial structure of Great Britain.	Actual.
	1939–45.	1945–47.	1939–47.	1939–47.	1939–47.
London and South-east	−2·73	+0·89	−1·84	+0·06	−1·78
East	+0·02	+0·05	+0·07	+0·13	+0·20
South	+0·06	+0·02	+0·08	+0·20	+0·28
South-west	+0·09	−0·04	+0·05	+0·10	+0·15
Midlands	−0·64	+0·09	−0·55	+0·45	−0·10
North Midlands	+0·31	−0·08	+0·23	−0·20	+0·03
East and West Ridings	+0·29	−0·03	+0·26	−0·35	−0·09
North-west	+0·94	−0·31	+0·63	−0·55	+0·08
North	+0·47	+0·02	+0·49	+0·15	+0·64
Wales	+0·77	−0·36	+0·41	—	+0·41
Scotland	+0·42	−0·25	+0·17	+0·01	+0·18
Total increases and decreases	±3·37	±1·07	±2·39	±1·10	±1·97

Table XII shows that the lower level of employment in the London and South-eastern Region for 1947, as compared with 1939, is due to changes in geographical distribution of industries. Similarly, the increases in employment in the Ridings and in the North-west are entirely due to this factor. On the other hand, the Midlands Region owes the slight increase in numbers employed to its industrial structure, which in the light of the changes in industrial composition of the country was favourable. The same factor was mainly responsible for the expansion of employment in the East, South, South-west of England, and Scotland, whilst the North Midlands, Northern and Welsh regions derived most of their increase from securing a larger share in most of the industries.

The results are only slightly modified if we consider gains and losses in terms of shares in the economy of Great Britain, instead of absolute numbers. In Table XIII the large loss of London and South-east and the small loss of the Midlands is seen to be caused by shifts between regions within each industry; the slight loss in the Ridings to shifts between industries. The relative gains of the East, South and South-west are mainly due to shifts between industries, those of the remaining regions mainly or entirely due to shifts between regions.

From either table, the geographical redistribution of industries in favour of nine regions, particularly the North-west, the North, Wales and Scotland, at the expense of the two losing regions, is seen to have occurred during the War. After the War London partly regained its position, mainly at the expense of the north-west, Wales and Scotland, but the North of England, as well as the East and South, held their own. The Midlands hardly regained any of the ground which the region had lost during the War.

Finally, in the same way as changes in total employment, changes in industrial diversity of each region may be analysed by comparing Tables III and IX and taking the differences in the coefficients of specialisation. The results are presented in Table XIV.

TABLE XIV

Region.	Changes in coefficient of specialisation (%) for each region.				
	Due to regional redistribution in each industry group.			Due to changes in industrial structure of Great Britain.	Actual.
	1939–45.	1945–47.	1939–47.	1939–47.	1939–47.
London and South-east	−0·6	−0·2	−0·8	−1·7	− 2·5
East	−2·0	+0·2	−1·8	−0·1	− 1·9
South . . .	−2·2	+1·1	−1·1	−1·0	− 2·1
South-west . .	+0·7	−1·8	−1·1	−0·3	− 1·4
Midlands . . .	−5·6	+1·7	−3·9	+0·9	− 3·0
North Midlands . .	−0·6	−1·2	−1·8	−1·9	− 3·7
East and West Ridings	+0·4	−1·1	−0·7	−1·8	− 2·5
North-west . .	−1·1	+0·8	−0·3	−1·5	− 1·8
North . . .	−2·2	−1·1	−3·3	−0·8	− 4·1
Wales . . .	−6·5	−2·8	−9·3	−1·1	−10·4
Scotland . . .	−0·5	−0·3	−0·8	+0·2	− 0·6

It can be seen that the general shift of employment from one industry to another was in most regions a contributory factor towards greater diversity; it was a major factor in the South and the North Midlands, and the main factor in London and South-east, the Ridings and the North-west. On the other hand, there was a shift of employment between regions within each industry which tended to increase diversity everywhere, particularly in Wales, the Midlands and the North. Generally speaking, the largest increases in diversity due to this factor took place during the War. In the after-war period, there seems to have been a tendency for industries to return to regions which specialised in

them. This trend was probably counteracted by government policy, which in regions containing development areas, notably Wales, succeeded in maintaining and further increasing diversity of employment.

In conclusion, an attempt will be made to summarise, on the basis of all the figures given in this paper, the main features of the changes in industrial employment for Great Britain and for each separate region.

Great Britain : In the majority of industry groups, employment fell during the War and partly recovered in the immediate post-war period. There were, however, some important industry groups in which employment either expanded steadily or rose sharply during the War and then fell off, but to a higher than pre-war level. Also, in a few small industry groups, employment in the post-war period rose more than it had fallen in war-time. On balance, employment reached a higher level in 1947 than in 1939, in spite of a smaller number of insured persons.

London and South-east : Owing to the War, the region lost ground in most industries relatively to Britain as a whole, though it partly regained it after 1945. The decrease in specialisation seems largely due to the fact that industries in which the region specialised or showed a deficiency have lost in importance.

East : The share in total insurable employment increased slightly but steadily, mainly owing to a fairly favourable industrial structure. The region managed to secure during the War and to retain afterwards a slightly higher share in some industries in which it had been deficient, and thus became slightly less specialised.

South : Share of employment increased during the War and practically maintained afterwards, chiefly owing to favourable industrial structure. The slight reduction in specialisation is caused by a combination of factors.

South-west : Slight relative gain in employment, mainly caused by industrial structure. Slight decrease in specialisation in post-war period, by losing a little ground in industries in which the region specialised.

Midlands : Industrial distribution in 1939 extremely favourable for expansion, but lost ground in the majority of industry groups in favour of the rest of the country, particularly in those in which it had specialised; this made for greater diversity. Since the War the region regained ground in some of these industries, but lost in others in which it is deficient, tending towards slightly more specialisation again.

North Midlands : Had an unfavourable structure in 1939, but compensated this by securing, during the War, a larger share of industries in which it had been deficient. This makes for higher diversity, and the fact that industries in which the region has a large excess or deficiency of employment lose in importance, contributes to the same end.

East and West Ridings : Unfavourable industrial structure, partly compensated by a higher share in most industries, makes for a slight relative loss in employment. The decrease in specialisation is mainly a consequence of the industrial structure.

North-west : Unfavourable industrial structure is more than compensated by securing, during the War, a larger share of employment for most industries. Decrease in specialisation mainly a consequence of industrial structure.

North : Favourable industrial structure, combined with geographical redistribution in favour of the region, bring about substantial absolute and relative increase in total employment during the War and on balance over the whole period 1939–47. The region gains mainly in industries in which it was deficient, thus achieving greater diversity.

Wales : Increasing shares in many industries, particularly those in which there was a deficiency, bring about substantial absolute and relative increase in employment during the War and for the whole period 1939–47, as well as a spectacular reduction in specialisation. Specialisation here was higher in 1939 than in any English region, but is now less than in the Midlands.

Scotland : There are no spectacular changes here. Owing to relative gains during the War, the level of employment is slightly higher, absolutely and relatively, in 1947 than in 1939. The degree of diversity, which was high in 1939, has not materially increased since then.

The total effect, over the period 1939–47, of accidental or planned redistribution of industry on regional employment levels has been a gain of over 350,000 persons in nine regions, and a corresponding loss in two regions. This figure, though not large compared with total employment levels, is large in relation to the total changes in employment, and affects them substantially. In all regions, whether gaining or losing, this shift of employment has been of such a character as to bring about a more even distribution of industry.

C. E. V. Leser

Department of Economic and Social Research,
Glasgow University.

ACCOUNTANTS, ECONOMISTS AND THE VALUATION OF FIXED ASSETS[1]

I

An incidental academic result of recent inflationary pressures has been a growing dissatisfaction among accountants at current methods of valuing assets and providing for depreciation.[2] There is a tendency to turn to economics for guidance, and to suggest that, in some way, economic theory should be called in to give assistance in defining real income and real capital, so that accountants and business men could get behind the "money symbol."[3]

Perhaps the clearest and most telling example of this tendency is a recent article in this Journal by Mr. Lacey.[4] It points out, with great cogency, the disadvantages that accrue from current standards of measurement of profit; it advocates a standard of measurement nearer to the "real" elements, and goes on to recommend a method of calculating profits on a basis of replacement costs.

Mr. Lacey's detailed suggestions clearly apply mainly to the valuation of trading stocks and raw materials. If adopted they would go far towards bringing accounting practice into line with opportunity-cost theory, and remove several of the more serious evils arising from the uncritical use of historical cost.

Except for his brief remarks on fixed assets, Mr. Lacey's detailed suggestions are not criticised in this article, and it is hoped that the consideration of the valuation of fixed assets offered here will be taken as supplementary to his suggested techniques for revaluing working stocks, where an item-by-item revaluation may be impracticable. Nevertheless, the theory underlying Mr. Lacey's article seems to be at fault; and his theoretical arguments appear to lead to two practical disadvan-

[1] The author wishes to acknowledge the help, at all stages in the preparation of this article, of Mr. M. W. Gulliford, A.C.A. It is not, however, to be assumed that he agrees with all the suggestions made here; and he is not responsible for any errors in the text.

[2] Cf. F. S. Bray, "Economic Accounting," *Accountant*, April 1947; "The Measurement of Profit," *Accountant*, July 1947.

[3] Cf. Bray, *op. cit.*, July 1947.

[4] Cf. K. Lacey, "Profit Measurement and the Trade Cycle," Economic Journal, Dec. 1947.

tages: a tendency to concentrate on the physical assets themselves, regardless of market conditions, in his treatment of fixed assets; and an unwillingness to recognise that revaluation is a change of convention rather than an income entry.

This article is written in the belief that economic theory can give assistance in modifying the conventions of accounting and taxation in regard to valuation; but that the appropriate branch of theory is not the one usually referred to. The problem is not an index-number problem; and it is not even closely allied to the problem of maintenance of real capital. It is a problem of devising appropriate conventions and rules of thumb to clarify opportunity costs.

II

A question of actual business policy, modified (to conceal identities) out of a number of questions recently discussed in Singapore, will be considered here from the point of view of an accountant and an economist, and certain conclusions drawn and recommendations made in the field of depreciation policy.

A shipping company builds a block of flats in 1930 for housing its own staff. The cost is $100,000 (Malayan). The flats are expected to last fifty years, and $2,000 is written off every year. In 1945 building costs have risen so that it would cost $350,000 to replace the flats, while their book value has been reduced to $70,000, the sum of $30,000 having been written off over fifteen years.

The flats are let free to the company's staff, as part of their conditions of service.

From the accountant's point of view there are two separate problems, the value at which to carry the assets and the provision of reserves for replacing them. The former is fairly simple: from the point of view of accounting theory the $100,000 was a cost incurred by the firm that it is entitled to defer charging against revenue because the asset acquired with it will last fifty years. The historical cost can therefore be divided into fifty parts (equal or unequal) according to some definite plan.[1] The only reason for modifying this plan is a change at any time in the remaining expected life of the asset. Provided this remains unchanged, the plan is adhered to. If, however, some change during 1945 drastically reduced the length of time the flats were expected to last, a larger sum than $2,000 might be written off in one year.[2] The rise in the replacement cost would not affect the book

[1] Cf. Keynes, *General Theory*, II, 6. [2] Cf. Bray, *op cit.*, April 1947.

valuation; nor would a fall, provided the anticipated life remained unchanged and there was no intention of selling the flats.

Provision for depreciation is not, however, regarded as sufficient by an accountant, when values are rising sharply. It might well be held that prudent finance demanded the setting aside of a fund sufficient to replace the flats by an equivalent block in 1980. This would mean that provision would have to be made to accumulate $320,000 in thirty-five years, or over $9,000 a year. The fund would not be built up by first writing off the flats in about eight years and then setting aside further sums. The original depreciation plan would be maintained, but an additional $7,000 net would be paid into a special reserve fund.[1] This would normally be taxable, so that the actual funds set aside would need to be much larger. Naturally accountants tend to say that such depreciation reserves should be allowed to reflect changes in the value of money. They would like an automatic method by which provision for depreciation could be allowed (for taxation purposes) so as to leave " real " values unchanged.

The economist's problem of maintenance of capital is quite different. To the economist the capital to be maintained can no longer be regarded as a fixed sum. It is merely a formula for expressing as one sum the discounted value of a stream of future satisfactions; and the nearest we can get to maintenance is to make the satisfactions derived this year no greater and no less than those which can be continued indefinitely.[2] (We are here assuming an economy of firms in which the firm has no interests separate from those of its shareholders, and without assuming that they all desire constant income streams, nevertheless aims at distributing a constant income stream as a convention to simplify all their plans. In fact, of course, the firm's interest normally favours conservative finance and a rising income stream.)

The correct attitude for the economist to adopt, if this problem were being treated from the point of view of real capital and real income, would be to attempt to anticipate the future effect of the flats on the salary bill and the efficiency of the staff, to reckon this in terms of money, corrected by some stabilising cost-of-living factor, and then, if necessary, to calculate the present value in terms of rates of discount which would change from time to time.

[1] This appears to be the plan suggested by Lacey, *op. cit.*, and also by Bray, *op. cit.*

[2] Following Hayek, cf. "Pure Theory of Capital," and also "Maintaining Capital Intact," *Economica*, August 1941. Contrast, however, Pigou, "National Income and Capital Depletion," ECONOMIC JOURNAL, June 1935, and "Maintaining Capital Intact," *Economica*, August 1941.

The appropriate rate of discount to use would depend on the whole earning structure of the business. Similarly, the provision for depreciation would be made to keep the real income derived by means of the flats unchanged, provided their relation to the rest of the business could be assumed unchanged.[1]

III

Now it is clear that when accountants want economists to help them get behind the money symbol they are not seeking a way to maintain real capital in any such sense as this. They want to make provision in some way for keeping real capital intact, along the lines already suggested; they would like to be able to provide for replacing the flats, and to do it by means of a system of depreciation funds capable of being recognised for taxation purposes. They are thinking in terms of estimating costs, as a general guide to policy, not of devising an automatic method of stabilising real (psychic) incomes.

To solve this problem it is necessary first to consider the practical purpose of estimating costs of durable assets. We will begin by assuming perfect competition, *i.e.*, that the price is taken as given by any one firm, and only output plans are under consideration. The purpose of estimating costs of all kinds will now be to enable the appropriate marginal cost to be discovered for any practical decision that arises.[2] Some decisions have long-run implications, others do not. When an indivisible decision covering sales over a long period has to be taken, the expenditure to be incurred has to be related to all the sales which will accrue from it. This involves an estimate of future experience. If past experience is to be used as a guide, this estimate must subsequently be checked against facts. The simplest method of checking over the whole period is to divide up the cost in advance over the units concerned (usually by time) and check for each unit whether expectations have been fulfilled. Provided cost figures are used intelligently in relation to the decisions actually to be taken, or taken in the past, they form a sound basis for rational decision. Of course, if an executive is foolish enough to charge a proportion of warehouse and office space in his minimum cost, when he has warehouses and offices empty and is

[1] This proviso is important. The assumption cannot normally be made when the prices of different assets have changed in different proportions.

[2] Cf. the analysis of costing in relation to time in H. Norris, "State Enterprise Price and Output Policy and the Problem of Cost Imputation," *Economica*, February 1947. The term "marginal" in the text refers to the indivisible unit of decision.

deciding whether to take on new business at a price which is genuinely outside his control, then his costing may lose him money. But for this his lack of intelligence should be blamed rather than the system of dividing total costs over the units concerned, which has a valid purpose both in influencing and in checking long-run decisions.

The problem to be solved in estimating costs on a durable asset is thus, in part, the well-worn problem of calculating marginal cost with an indivisible factor of production. Once the decision to devote the factor as a whole to one particular purpose is taken, marginal costs for units of output produced will be inevitably affected; thus short-period and long-period marginal costs inevitably differ, and no one figure can both serve as a check on past decisions and give the necessary guidance for present ones; [1] yet in taking the original decision (and in checking its correctness afterwards) the output must be treated as a whole, which means in general that all units produced must be costed equally.[2] In deciding how to use an asset, once installed, these averaged cost figures are irrelevant. Other devices must be used: overheads may be ignored in some problems as irrelevant; fixed assets may be treated as a temporarily irremovable bottleneck in others; occasionally a special figure may be estimated where a particular job overworks a fixed asset without compelling the creation of a new one. But in any case the average figure, used when the asset was installed, to compare with anticipated returns, and subsequently to compare with achieved results is normally irrelevant to such decisions.[3]

[1] This makes it inevitable that a price which is made equal to short-period marginal cost will differ widely from the appropriate long-period marginal cost, so that State enterprises basing their prices on short-period marginal cost will often make large profits or losses. The short-period marginal cost curve will normally rise very steeply in the neighbourhood of capacity production, so that where it is not worth installing a new plant the price may be very high. Lerner (*Economics of Control*) appears to assume (on the basis of falling long-period costs) that losses would be much commoner than profits. In this assumption he has been followed by later writers. If falling long-period costs depend on indivisibilities, however, this assumption is very questionable.

[2] Equality is not, however, always the best method of allocation. The principle to be borne in mind is that the costing should provide a check against the original decision, both before and after it is made. If a given unit of output, *e.g.*, at a peak load, adds disproportionately to the capital cost, such a unit should be charged a disproportionate share of the cost. This does not necessarily mean that it will be practical or wise to sell it at a different price from other units. Cf. p. 356 below, and also W. A. Lewis, "The Two Part Tariff," *Economica*, 1941.

[3] It is, of course, frequently used; but this is not intelligent policy except as part of conventional price-fixing in a market in which oligopoly prevails; cf., for example, *Oxford Economic Papers*, No. 2.

It will be noticed that, so far, the time at which output from a given asset is expected to be produced has been treated as irrelevant. At a later stage in the argument we shall allow for the fact that returns in the distant future are not quite equivalent to returns in the near future; but quite often costs are for convenience divided over time equally without allowing for this fact.[1]

IV

We may now return to our block of flats. From the point of view of following up the original decision to build them, there is no justification for changing the original plan. When the original sum paid has been written off, the remainder is profit above original cost. From this point of view, the setting aside of additional funds is simply saving by the firm on behalf of its shareholders, instead of leaving it to them to do themselves.

From the point of view of maintaining real income, the whole assets would need to be revalued with every change in the probability of securing profits : the valuation of assets and calculation of depreciation funds would be as volatile a thing as the market valuation of shares. But costs cannot include such a large element of uncertain anticipation, or the whole precision of the accountant's profession will be entirely destroyed.

Is there then any reason why it should be considered prudent, when assets are rising in value, to do more than pay back the money cost before reckoning the profit? Mr. Lacey has suggested several good reasons for charging replacement costs on working capital, and several of these apply in part to fixed assets. But we have seen that provision for replacement is not usually justified by accountants in any terms that could be translated into maintaining anything that economists could recognise as "real" capital intact. It is easy to see that it would be equally futile to justify it by speaking of replacing the original capital asset intact. The appropriate form for the capital to take changes not merely with changes in technique but with changes in the economic situation also. No one would expect the new block of flats built in 1980 to be the same in all respects as those built in 1930. And if we try to say that the flats should in some sense do the same thing as the original ones we shall encounter difficulty in defining "doing the same thing" without reference to anticipated incomes.

Neither the real income nor the real flats will do. We must

[1] Cf. R. F. Fowler, *The Depreciation of Capital Analytically Considered.*

find some theoretical basis for adjusting depreciation provisions, but it must be something in the nature of a cost, not a value.

The reasons for attempting to revalue assets is that essential information is sacrificed if we confine ourselves, in our post-mortems on costs, to judging by the standard originally laid down; for any given operations are the result of many plans made at many different times, and if these plans are inconsistent with one another their combined result lacks significance. Of course, unless there is poor co-ordination the plans will not be inconsistent in terms of their objective; by the time any later plan is made the objectives of all earlier plans should have been adjusted to conform to the new one.[1] But the costs, if they remain crystallised in terms of the original plan, will not be co-ordinated into any intelligible total.

In modern business it is not possible to allocate revenues to particular assets, since the product accrues to the business as a whole. Different assets were bought at different times. All that can be done therefore is to reduce costs to a consistent basis which will make it possible to check results over a given *period*. This means retaining the theory of carrying forward historical costs, but adjusting the convention on which costs are based to correspond to present replacement values which are consistent for all assets in any given year.

All past plans have been modified from time to time to conform to the ever-changing ends of economic life; we require a rule of thumb by which costs can be co-ordinated for any period so as to be intelligibly checked against achievements; but the costs must remain costs, taking no credit for any anticipated gains.

V

An appropriate rule of thumb will now be suggested. It is a rough and ready one, for in the nature of the case it is not possible to be precise where the objectives have changed.[2] If one is no longer aiming at the same goal it is not possible to ignore this fact completely in testing the extent to which plans made at any time have been achieved; and yet we must ignore it if we are not to take credit for uncompleted aspirations, but concentrate strictly on costs.

[1] Poor co-ordination is, of course, possible or even probable. More consistent conventions will help to eliminate it.

[2] This makes it essential to allow for "fully adequate substitutes" below, though it is difficult to define adequacy without begging a number of questions.

The rule can be formulated as follows :—

(*a*) A new document of account should be prepared and presented with the Balance Sheet. It should be called the Memorandum Assets Revaluation Statement (M.A.R.S.). Its function should be to show changes in the valuation of assets in accordance with changes in replacement costs, not as an aspect of profit and loss but as changes in the convention by which profit and loss are calculated.

(*b*) This document should show, item by item, or in summary form where necessary, revaluations of all assets on the basis of replacement cost as shown in (*c*) to (*f*) below.

(*c*) The original plan of allocation of costs over time should be adhered to unless any unforeseen factors have shortened the expected life of the asset. This may involve writing off the asset by means of a sinking fund, or by a straight line method, or in any other way. Adherence to the original plan will mean that if the book value of an asset in (say) its tenth year was originally planned to be half its historical cost it would, in the M.A.R.S., still stand in the tenth year at half the new conventional cost based on replacement.

(*d*) The uncompleted remainder of the asset's life would be revalued in the books each year in proportion to changes in its replacement cost. The M.A.R.S. would show these revaluations and indicate in a separate column the method of estimating replacement cost. Replacement, new, of the original article or—in some cases [1]—of the cheapest fully adequate substitute would be used, but it would probably be necessary to indicate the assumed conditions of purchase in some cases.

(*e*) The relation between the M.A.R.S. and the Balance Sheet would be as follows. Every Balance Sheet would be based on the previous year's M.A.R.S.; *i.e.*, for every asset the previous year's M.A.R.S. value would be shown in the Balance Sheet. Depreciation allowances would be calculated on this basis, and the provision for depreciation shown separately,[2] and deducted before arriving at profit and loss.

[1] This alternative should be used only where unforeseen obsolescence has raised the replacement cost of the original asset in comparison with substitutes —*e.g.*, of a fleet of trams when trams are no longer being produced on a large scale.

[2] For full consistency each asset should be shown at current replacement cost, and the depreciation provisions already made should also be revalued in accordance with current replacement cost. This would bring out clearly the point that asset revaluation is merely an adjustment of conventions. Provided that this could be done in detail in the M.A.R.S., so that the revalued depreciation

Thus the valuation in the previous M.A.R.S., instead of the original historical cost, would be used as a basis for both depreciation policy and profit calculation. The difference between the previous Balance Sheet values and the previous year's M.A.R.S. values would be carried direct to an Asset Revaluation Provision, without passing through profit and loss. This Asset Revaluation Provision would be carried forward from year to year and its total could be either positive or negative. Its function should be to indicate a change in convention only. It should be illegal to distribute it as dividends and increases in it ought not to be liable to income tax.

(*f*) Wherever the anticipated life of an asset has been materially shortened by some unforeseen event, so as to become less than that originally planned, an appropriate provision should be entered in the ordinary Balance Sheet, and not carried to the Memorandum Assets Revaluation Statement.

For example, an asset originally planned to last twenty years and having a replacement cost at the beginning of the sixteenth year of £20 has an accident during the year which makes it probable that it will not last beyond the end of the eighteenth year. At the beginning of the year it will stand in the books at £5, this figure being brought forward from the last M.A.R.S., 5/20 of £20; at the end it will be depreciated to £3 6*s*. 8*d*. in the Balance Sheet; *i.e.*, one-third instead of one-fifth of the last M.A.R.S. value will be written off in the sixteenth year.

If the replacement cost has fallen in the sixteenth year to £15, the Memorandum Assets Revaluation Statement published with the Balance Sheet at the end of the sixteenth year will show this £3 6*s*. 8*d*. reduced in the ratio 20 : 15, *i.e.*, to £2 10*s*. 0*d*., on which value depreciation will be calculated for the next period; so that, if there is no change in the expected life, this asset will be carried at £1 5*s*. 0*d*. at the end of the seventeenth year, and written off by the end of the eighteenth. The loss of 13*s*. 4*d*. due to the accident will be carried to profit and loss for the sixteenth year; the further " loss " of 16*s*. 8*d*. due to falling replacement value will be shown in M.A.R.S. and deducted from A.R.P.

---

provisions could be scrutinised with the other revaluations, there would be no objection to this. In practice, however, the M.A.R.S. could not normally give enough detail, and the suggestion in the text would give as much information as could be understood. Cf., however, Institute of Chartered Accountants of England and Wales, *Recommendations on Accounting Principles*, 1944.

To put the rule in another way: the Balance Sheet value at the end of any year other than the first is calculated from the M.A.R.S. value at the beginning of the year depreciated according to the original time-plan or any less favourable time-plan that events in the year have shown to be necessary. The M.A.R.S. value at the end of the year is calculated from the Balance Sheet value by adjusting in proportion to replacement cost of the asset. The sum of all the differences between Balance Sheet values and M.A.R.S. values will, in the *next* Balance Sheet, be credited or debited to Asset Revaluation Provision; but in the current Balance Sheet, and hence in the Profit and Loss Account, the new replacement values will not appear at all: their place will be in the M.A.R.S. only.

We may illustrate by considering our block of flats. Up to 1945 the replacement cost of the flats was reckoned at $100,000. In 1945 replacement cost rises to $350,000. In the 1945 balance sheet the flats are carried at $70,000, the ordinary sum of $2,000 being written off for the year from the (hypothetical) 1944 Balance Sheet, and contributing its share to the loss which was (presumably owing to the Occupation) incurred in this year. In the 1945 Memorandum Assets Revaluation Statement the flats are shown as changing from $70,000 to $\$70{,}000 + \frac{350{,}000}{100{,}000}$ or $245,000, and a capital gain of $175,000 is recorded there, *but not in the Balance Sheet, or Profit and Loss Account.* For 1946 the flats are carried in the books at $245,000, and provision is made to write this off at $7,000 a year, in thirty-five years, so that if no change occurs in their anticipated life they will be carried at $238,000 in the Balance Sheet for 1946. A liability of $175,000 to the Assets Revaluation Provision will appear in the Balance Sheet for 1946, and $7,000 depreciation will be charged to the 1946 Profit and Loss Account.

VI

It is probable that many accountants would object to this procedure on two grounds. They would contend that the writing up of assets is an extremely dangerous practice; and they would add that if the practice had to be admitted, the amount added between one year and another should be shown in the Balance Sheet and not merely in a Memorandum.

These objections are, however, invalid. The reason for not showing the writing up in the Balance Sheet is that it is not being treated as a profit, but as a change in convention. It is desirable

to preserve consistency between the Balance Sheet and the Profit and Loss Account for the year, and to bridge the gap between succeeding years by a separate document which sets out the change in the convention in a form that distinguishes it as clearly as possible from an ordinary profit. In times of falling prices the Asset Revaluation Provision would be drawn on automatically. Even when its total balance was negative the firm should not be debarred by law from distributing profits, though it might be regarded as prudent at such times to place rather more of any profit earned to general reserve.

Apart from this technical objection, however, accountants might raise an objection of substance. It might be held that it showed a lack of common prudence to adopt a plan that would not replace the actual physical asset when its commercial life came to an end. It might be argued, for instance, that the shipping firm in our example would not have, in 1980, enough funds to house its employees as well as at present.

This argument ignores what is happening to the depreciation allowances. We may consider two separate cases : the cost of building may have risen in the same proportion as prices in general, or it may have risen in a different proportion. If it has risen in the same proportion the assets bought with the depreciation funds set aside will (unless the funds have been invested in bonds) have themselves risen on revaluations by 1980, and by regrouping its capital the firm will be able to replace the flats in the same way as if prices had not changed. If depreciation funds have been invested in bonds (or kept in cash) the flats will not be able to be replaced; but this will presumably be because, in spite of rising prices, the firm preferred security of money yield to a hedge against inflation. A part of any such money yield might reasonably be set aside; but if these decisions of policy are wrapped up in depreciation allowances the results of bad policy will be concealed from shareholders.

Building costs may, however, have risen more than the costs of other things. In this case the renewal of the flats in 1980 on the same scale would involve locking up a bigger proportion than before of the firm's capital in housing its staff. But the change in relative prices may have made it undesirable to house staff in the same way. By drawing attention to this well in advance the depreciation policy will enable the firm either to change its policy before 1980 or (if the illiquidity of the asset makes this undesirable) at least to make plans to do it when 1980 arrives either by raising new capital or by curtailing other activities.

Executives with many things to think about may easily allow fixed assets to become something to maintain and renew automatically. It is undesirable, however, that the system of depreciation of assets should encourage this automatism. Even the necessity to renew an asset every fifty years represents some slight measure of liquidity of that asset, which should not be sacrificed by allowing the executive to think of it simply as a permanent block of flats regardless of market conditions.

VII

Two assumptions that have been made now need reconsideration. In our example we have depreciated our block of flats by a straight-line method, writing off an equal amount every year. In practice this is not justifiable. Some allowance for the passing of time must be made.

Originally the total cost has to be measured against the total anticipated gain, since the asset is indivisible over time. For the sake of getting comparable measurements the anticipated gains can be discounted back to the present, and if this is done they will be discounted at a rate subjectively determined to allow for the business man's own estimate of risk. If the aim of depreciation policy were to maintain real capital the appropriate rate of discount would be this subjective one. But our analysis has treated depreciation policy as primarily a means of checking up on anticipated marginal cost for an asset not divisible into separate time-units. For this purpose it is necessary, if comparisons are to be effective, to convert the expenditure of a single capital sum into an equivalent series of annual expenditures. These can then be compared with the annual revenues.

If there is originally no plan to earn different revenues in different time periods, the costs will be divided equally except for the time factor. This factor will be allowed for by a rate of discount that in principle should be equal to the market rate on an asset of equivalent liquidity and risk. In practice, of course, liquidity and risk cannot be accurately evaluated for an individual asset, any more than can the subjective estimate of annual yield for an individual asset. But the two are different concepts, the difference being the reason for undertaking the investment in the first place. It is important that we should at least be clear in theory that the relevant rate for discounting is the (normally) lower rate corresponding to cost, not the higher one corresponding to yield.

Where the original plan envisages different revenues in different years, the problem of allocating the costs in the original depreciation policy becomes more complicated. A decline envisaged on account of wear and tear, and rising maintenance costs, introduces only arithmetical complexity. Clearly here the costs should be divided in proportion to the discounted anticipated yields. It is doubtful, however, whether the increased complexity of calculation would normally give any commensurate advantage, and probably all that would be done in practice would be to make the discount rate used higher than it would otherwise be.

A fluctuating yield, with revenue high because of full utilisation in one or more peak periods, and other periods in which the equipment is expected not to be fully used (or fully used only at much lower prices), raises much more difficult problems. Here we have the problem of the peak load. It may be undesirable, at the time of making the plan, to distribute costs equally over expected units of revenue produced, because a concentration of revenue units at one particular point in time may have a disproportionate effect on the original capital outlay.

Take, for example, the following series of yields (prices of products assumed unchangeable over time) :—

Year	1	2	3	4	5	6
Yield	20	40	20	20	20	20

Clearly if (as is probable) the capacity to produce a yield of 40 in year 2 makes the capital asset considerably more expensive than if it had had to produce only 20 each year, the whole of the additional expense should be debited to the added 20 units in year 2, and depreciation allowances on the asset calculated accordingly. By the same principle, if the capacity to produce a yield of 40 differed negligibly in cost from the capacity to produce a yield of 20 it would be unreasonable even to charge depreciation in proportion to yield in year 2.

Actual cases will commonly be much more complicated than this, and accurate apportionment of costs may not be worth the labour involved. Such accurate apportionment is, however, the basis of sound depreciation policy. It is the means by which decisions can be founded on quantitative estimates, and their effects subsequently checked in profit or loss as a guide through which executives can learn by experience.

Whatever the original apportionment may have been, it has already been suggested that firms should adhere to this apportionment, even when changes in replacement cost lead to revaluation

of assets. For the revaluation is simply a change in the convention from year to year, to enable the tests of plans made at different times to be made consistent with one another within any given year. Changes in the apportionment should normally be made only when new facts have shown the original plan to have been at fault. Normally, therefore, they should be made only to write off losses, no adjustment being made when events prove more favourable than the original estimate. The principle here is that provision may reasonably be made for losses that have become probable, while profits should not be taken until they accrue.[1] In any event all changes in the depreciation on account of changes in time-plans should be shown in the ordinary Balance Sheet and carried to profit and loss. They have no place in the Memorandum Assets Revaluation Statement.

VIII

We must next attempt to remove the assumption of perfect competition. Many firms in practice can affect the prices at which their own products sell. We must see whether this affects our analysis.

In general, price policy should be essentially forward-looking and unaffected by any costs incurred in the past, except in so far as these are a guide to what is going to happen in the future. Prices can (at least in traditional economic theory) be adjusted from day to day. It is in general, therefore, undesirable to tie the firm down to any price based on historical cost, since this cannot yield more, and may yield less, than a price designed afresh each day to maximise profit.[2] Depreciation allowances should, therefore, be entirely irrelevant to price formation. In estimating future returns from a given investment the executive should reckon that the price will be adjusted at all future times to achieve maximum profit, and he should decide accordingly whether to invest or not. In any subsequent test of the yield from the investment the price should be calculated without reference to this past cost, and the returns then compared with this cost as an estimate of performance.

This principle may, however, need modification where prices are not adjustable from day to day. Where prices can be adjusted

[1] Hence, where more favourable expectations are a result of exceptional expenditure, credit may be taken for them up to the aggregate amount of such expenditure, cf. Bray, *op. cit.*, April 1947.

[2] The factors governing adjustment of prices may often differ from those governing the best allocation of costs.

only at fairly infrequent intervals, and where certain items of equipment will need renewal within the period of unchanged prices, it will be reasonable to include in marginal cost, for purposes of fixing prices, depreciation charges on such items revalued according to current (or, if possible, anticipated) replacement cost. The condition in which price adjustments are necessarily infrequent may arise for a number of reasons. The theory of discriminating monopoly can be applied to a single monopolist's sales at different points of time. Different prices can be charged only if there are sufficient restrictions on transfer from one "market" (*i.e.*, one time) to another. This is Marshall's case of reluctance to cut a price for fear of the effect on one's own future market.[1] An even more compelling reason for maintaining fairly stable prices is the prospective reaction of one's competitors within a small group. It is generally recognised among economists that the demand curve, in conditions of oligopoly, is likely to have a marked kink which makes for stability of prices. In these conditions depreciation allowances will be likely to be treated as a component of marginal costs. To allow them to be adjusted in accordance with the replacement costs of capital goods would make the prices of the products conform more closely to true costs; but it would also tend to increase the flexibility of prices in general. This would certainly benefit the economy as a whole if overall controls could prevent the general price level from fluctuating beyond certain limits.

IX

It remains only to comment on the general suggestion that accountants should learn from economists how to get behind the money symbol in these matters.

First, let it be said that money is very much more than a symbol. Its effectiveness as a human institution depends on this fact. It is wanted by human beings and is striven for and held by them for the purpose of satisfying their wants indirectly. In this respect, it stands, perhaps, midway between a pair of shoes and a linotype machine, both of which are undeniably "real" things and not mere symbols.

No doubt in the early stages of the progress of economics attention was directed to the quest for underlying realities beneath the phenomena of daily life. At this time money was treated as little more than a symbol. In recent times, however,

[1] Cf. Marshall, *Principles*, V, v, 6.

this quest for an underlying reality has been waning in importance; it is recognised that money is not the only possible *numéraire*, and other specific measurements are devised to measure specific transformations and substitutions, without any attempt to find a unique measurement of the "reality" underlying money.[1] In other words, economists have paid more attention to analysing the measured and observed relations of phenomena themselves; both Keynes and Hicks have taught us to give heed to the substitutions and exchanges between stocks of money and stocks of other assets, between flows of money and flows of goods, and between stocks and flows generally. And these methods have borne fruit.

In setting out their affairs in terms of a single unit which is convenient for measurement, men have a definite purpose. It is the business of accounting to serve this purpose as clearly as possible and not be diverted by out of date and irrelevant economic concepts. The purpose is to make comparison clear, so that transformations and shifts of resources, by exchange or by production, can take place with the minimum of confusion. It is an inevitable failing of money that it cannot, in a progressive economy, be kept constant in value in terms of all the things (or even groups of things) which have emotional significance to men. It is not, for example, possible to stabilise both wages and retail prices at the same time. All plans over a period of time must therefore imply individual judgments about the future course of prices in general, and not merely of particular prices. But the group which will make up "prices in general" inevitably differs from person to person.

In planning monetary policy good Governments will have regard, among other things, to the convenience to the public of having a medium that is at least reasonably stable. Where Governments neglect the convenience of the public, or where other considerations are of greater importance than convenience in measurement, the public will be compelled to make decisions in terms of a fluctuating unit. Even then, however, it is better that they should have only one unit. An attempt to adjust depreciation allowances by means of index numbers, which would probably differ from firm to firm, and would certainly not always be relevant, would not further the purpose of intelligent comparison. This purpose will rather be furthered by adjusting conventions to give maximum comparability in terms of money itself.

[1] Cf. Keynes, *Treatise on Money*, I, p. 6; Hicks, *Value and Capital*, p. 14.

The man who puts his money into an equity of any kind normally has some confidence in the ability and integrity of the firm in which he invests. But he also expects the value and yield of his holding to rise or fall, in a general way, with rising or falling prices. Beyond that he expects that if his holding is connected by close ties with some particular commodity the relation between the rise or fall in value of his holding and the changes in the general price level will depend on what happens to that commodity. If he holds South African industrials he will, in general, expect to benefit from a relative rise in the price of gold which he expects to affect all South African assets.

It is the contention of this article that depreciation allowances adjusted, in proportion to the unexpired portion, for changes in replacement costs, give the clearest basis of comparison for this purpose to investors and the public generally; and that for consistency the conventions for asset valuation should be annually revised to allow for changes in this proportion of the replacement costs, without carrying the differences through profit and loss.

T. H. Silcock

Raffles College,
Singapore.

INVOLUNTARY UNEMPLOYMENT AND THE KEYNESIAN SUPPLY FUNCTION[1]

I. Introduction

1. Within the framework of traditional Keynesian economics there are at least two basic issues which have not yet been settled. The first centres about the frequently heard complaint that Keynesian models neglect the supply side of the market. The second is concerned with the very question which brought forth the *General Theory*: involuntary unemployment. Examination of the Keynesian theory shows that (even granted its argument) it explains primarily the level of employment; it is inadequate in providing either a criterion for the measurement of *un*employment, or a justification for calling it "involuntary."

The only serious attempt to deal with this last question proceeds by assuming a special shape for the supply curve of labor,[2] as in Fig. 1. Here N represents employment; w, the money wage; and $w = f(N)$, the supply curve of labor. By assumption, this supply curve is horizontal at the "customary money wage," w_0, until the amount of employment N_1. In other words, it is assumed that until a certain point money wages are completely rigid. If the amount of labor employed is N_0, then involuntary unemployment to the extent $N_1 - N_0$ is said to exist—since this

[1] Research in connection with this paper was undertaken under a Social Science Research Council fellowship. It will be reprinted in Cowles Commission Paper No. 38.

I should like to express my general indebtedness to two of my former colleagues at the Cowles Commission for Research in Economics: To Lawrence R. Klein (now of the National Bureau of Economic Research), whose excellent book, *The Keynesian Revolution* (New York: Macmillan and Co., 1947), read in manuscript form, started me thinking about many of the problems discussed in this paper; and to Trygve Haavelmo (now of the Oslo Institute of Economics), who was a constant source of stimulation and encouragement.

I am also particularly indebted to the following individuals, who read earlier drafts of this paper and offered many valuable criticisms and suggestions: James Buchanan (University of Tennessee); Robert and Marianne Ferber (University of Illinois); Malcolm Hogg (University of Illinois); Everett E. Hagen (University of Illinois); and D. Gale Johnson, H. Gregg Lewis and Jacob Marschak (University of Chicago). I am also grateful to many former colleagues of the University of Chicago Department of Economics and of the Cowles Commission with whom I have discussed the ideas presented in this essay.

[2] Cf., *e.g.*, Oscar Lange, *Price Flexibility and Employment* (Bloomington, Indiana: Principia Press, 1945), p. 6.

many additional workers would be willing to work at the prevailing market wage. The artificiality of this definition is sufficiently demonstrated if one considers the case in which the supply curve, instead of being horizontal until the point N_1, rises at an extremely slow rate.

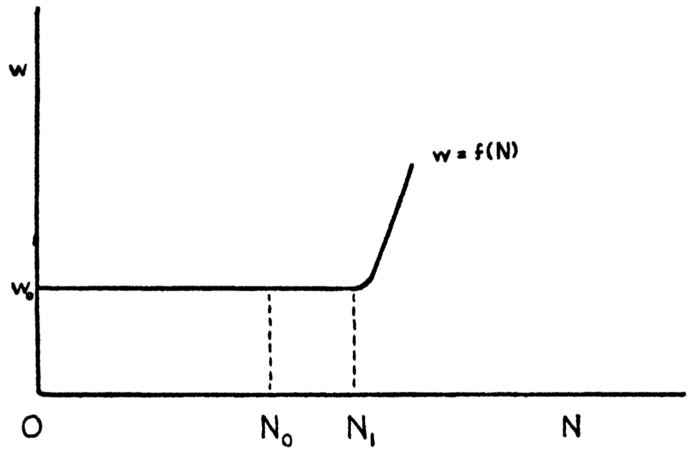


FIG. 1.

In the following sections it will be shown that the two seemingly independent issues raised above are, in fact, vitally interrelated. In particular, it will be argued that the key to our difficulties lies in explicitly introducing supply functions into the standard Keynesian models : once this is done, the problem of defining and measuring involuntary unemployment is simultaneously solved.

II. THE SUPPLY FUNCTION

2. The traditional tools of Keynesian analysis are the consumption and investment functions. In the very simple Keynesian models these are assumed to depend only on the level of real national income ; this is the situation in Fig. 2. Here C, I and E are " desired " real-consumption expenditures, investment expenditures and total expenditures, respectively. Y is real national income, and E^* is actual, as distinct from " desired," total real expenditures. $G(Y)$ and $H(Y)$ are the " desired "-consumption and " desired "-investment functions, respectively. The total-expenditures function, $F(Y)$, is obtained by the vertical addition of $G(Y)$ and $H(Y)$.

First of all, we must make clear the sense in which the term " desired " is being used. It refers to nothing more than the schedule of alternative actions (as represented by the demand and supply

curves) of traditional economic theory. Consider, for example, the "desired"-consumption function. This can be considered as the end-product of the following experiment: Every individual in the economy is approached, told that he must stay within his income and asked how much of each particular good he will buy at different sets of prices and personal income. This gives us the usual individual demand curves of Walrasian general-equilibrium economics. If we sum up these demand curves for all individuals

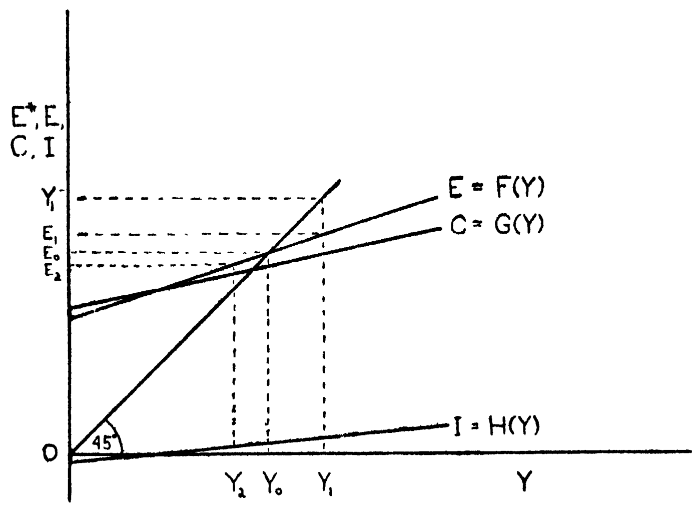


FIG. 2.

and for all goods, we obtain the aggregate "desired"-consumption function. Under certain assumptions,[1] this desired-consumption function will be of such a form that aggregate real desired-consumption will depend only on aggregate real income. These assumptions have been implicitly made in the preceding paragraph; consequently, our desired-consumption function there is written as $C = G(Y)$. It tells us the aggregate amounts the economy desires to consume at different income levels.

Thus the desired behavior of consumers is defined as their behavior under certain specified conditions—a behavior that is described by their Walrasian demand curves. In a similar way we can specify certain conditions under which the firm must

[1] Namely, (*a*) that the individual demand curves depend only on relative prices and real income; and (*b*) that in deflating money consumption expenditures and money national income we use a certain price index which emerges from the aggregating process itself. For an example of the derivation of the consumption function in this way see L. R. Klein, "A Post-Mortem on Transition Predictions," *Journal of Political Economy*, LIV (1946), 300–1.

operate (*e.g.*, the transformation function) and derive the desired-investment function. The conceptual experiment here is the following one: We ask each firm how much it will invest at different sets of prices and national income, subject to the restriction that the firm's inputs and outputs are related in a specified way (*i.e.*, subject to the firm's transformation function). The results of these experiments will, after aggregation, give us the desired-investment function, $I = H(Y)$. (Admittedly, there are many more conceptual difficulties in doing this than in constructing the desired-consumption function; but these need not detain us now.) The total expenditures function, $F(Y)$, being the vertical sum of the consumption and investment function, thus represents the total expenditure people desire to make at any given level of real income.

3. Once the total desired-expenditures function $F(Y)$ is given, the equilibrium level of real national income is determined as follows: First, a 45° line through the origin is drawn. This line (whose equation is $E^* = Y$) represents the fact that, by definition, real national income is equal to actual real expenditures: no one can receive income except as a result of expenditures by someone else.[1] Now consider the income level Y_1. At this level people desire to spend only the amount E_1, which is less than Y_1. In other words, if the income Y_1 is to be maintained, people must continue spending more than they desire to the extent $Y_1 - E_1$. For example, inventories will be accumulated above the amount indicated by the desired-investment function. This undesired spending cannot continue indefinitely. To use again the example of inventories, people will attempt to reduce their undesired accumulations, and, as a result of this attempt, the level of real income prevailing in the system will change. Hence Y_1 cannot be an equilibrium position.

Similarly, the equilibrium level cannot be Y_2; for at that level people would try to correct the resulting undesired disinvestment that would be occurring. To use again the example of inventories, people will try to replenish inventories that have been drawn down below their desired levels, and by this action will change the level of income. By reasoning along these lines we see that the equilibrium level must be at Y_0. At this point—which is given by the intersection of the 45° line and the total desired-expenditure function—desired and actual aggregate expenditures are

[1] Many complications are hidden in this simple statement—such as the practice of considering inventory accumulation as purchases of the firm from itself. But these complications need not concern us here.

equal. Hence, within the framework of the given conditions, there exists no force acting to change the income level from Y_0.[1]

4. So much for the standard Keynesian analysis. However, a little reflection will make it obvious that there are some missing links in the argument. Consider again Fig. 2. The careful reader will have noted that all that was said about the income level Y_1 or Y_2 was that they were not equilibrium levels; nothing was said about the direction in which the forces set up by the resulting disequilibria would cause the income level to move. In other words, no attempt was made to show that if the economy were, say, at the income level Y_2, automatic forces would be set up to push the income in the direction of the equilibrium level, Y_0. If we were to try to follow through such a dynamic analysis, the omission of certain factors from the Keynesian analysis represented by Fig. 2 would immediately become evident. For the standard dynamic analysis runs along the following lines (cf. Fig. 2): If the income level were Y_1, the resulting accumulation of undesired inventories would drive prices down and therefore discourage production. As an immediate result, income payments, and hence national income, would decline. This process would continue until the income level Y_0 is reached. Similarly, if the income level were Y_2, prices would be driven up, and production increased.

The significant point about the preceding dynamic analysis is that it calls into play factors completely outside the analytical framework of Fig. 2. It presupposes some type of behaviour (*e.g.*, responses to changes in inventories) from the supply side of the market which is never explicitly introduced into the analysis. This procedure is a sharp contrast with that employed in, say, the dynamic analysis of partial equilibrium in one particular market. There both sides of the market are represented by the traditional demand and supply curves. If the price is higher than the equilibrium one, the analysis itself indicates the force (viz., the excess supply) which drives prices down. There is no need to appeal to outside forces to explain the movement toward equilibrium.

From all this there follows but one conclusion: something must be done to complete the Keynesian picture; and that "something" must clearly be the explicit introduction of the

[1] I abstract here from the difficulty that this equilibrium is only aggregative, and may be disturbed by the disequilibrium of individual firms. Cf. Arthur F. Burns, *Economic Research and the Keynesian Thinking of our Times* (Twenty-sixth Annual Report of the National Bureau of Economic Research, 1946), p. 9.

supply side into the analysis. It is to this task that we turn in the section which follows.

5. To start from fundamentals, it is clear that a complete explanation of the economic system can be presented only through a Walrasian general-equilibrium system. Unfortunately, for practical analytical purposes such a system is entirely too large and cumbersome. Aggregation is necessary to reduce it to manageable terms. Thus, we have seen that in the preceding Keynesian models all the Walrasian demand curves for finished goods are aggregated into two functions : the consumption and investment functions. But these represent only one side of the market—the demand side. The system presented in Fig. 2 provides no aggregate counterpart to the supply functions of the general-equilibrium system. But clearly such an aggregate function can be built up from the Walrasian supply functions in exactly the same way that the consumption and investment functions were built up from the Walrasian demand functions. Furthermore, the interpretation of such an aggregate function will be completely analogous to that of, say, the aggregate desired-consumption function. The Walrasian supply functions from which the aggregate supply function is constructed represent the behaviour of suppliers within a specified framework (profit maximisation, given transformation curves, etc.); these supply functions, by definition, represent the desires of suppliers. Hence, the function we get by aggregating them also represents the desires of suppliers. We call this function "the aggregate desired-supply function." It shows the aggregate amount of finished goods and services suppliers desire to provide at different levels of income.

In other words, the equilibrium position of the Walrasian system is determined by the joint influence of the demand and supply functions. In the process of aggregation we do lose a lot of detailed information. This we are willing to sacrifice for the sake of manageability. But one characteristic of the general-equilibrium system which we should carry over to the aggregate (or macro-) system is that supply factors, as well as demand factors, influence the equilibrium position. No such influence is provided for in our Keynesian model of Fig. 2. In order to bring it in, our macro-system must provide an aggregate desired-supply function (corresponding to the aggregate desired-consumption and -investment functions) which should play a co-equal role in the determination of the equilibrium position.

What might the form of this aggregate desired-supply function be? By making assumptions similar to those made for the con-

sumption function we can have aggregate real desired supply, S, depending only on real income, Y. In Fig. 3 this function is drawn as $S = Q(Y)$.

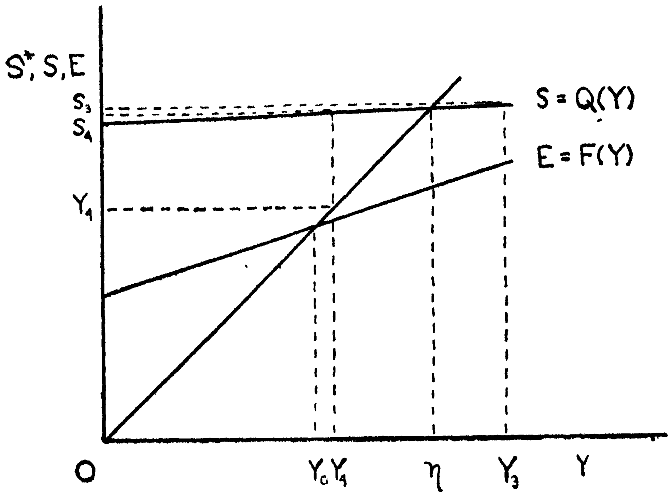


FIG. 3.

What is the form of $Q(Y)$? It can be shown that the assumptions made in aggregating the supply function imply that the real return to productive services is constant; that is, the price of finished goods is always proportionate to the price of productive services.[1] This should lead us to suspect that the function $Q(Y)$ might have a special form. In particular, since the real return is constant, suppliers might desire to provide the same amount of goods regardless of the level of income. In that case the aggregate supply function would be a horizontal line at, say, the level η. This extreme position was not taken in Fig. 4; but some allowance for it was made by giving $Q(Y)$ a small slope with respect to Y. In other words, it was assumed that the desired supply does not vary much with the level of income.

Lest there be any misunderstanding on this point, it should be made clear that the assumption of a constant real wage is regarded as completely unrealistic. We shall, in fact, remove this assump-

[1] Limitations of space prevented the publication of the mathematical appendix to this article in which this was proved. The general argument is related to footnote 1 on p. 362, above. The price index that comes out of the aggregation there is for finished goods only; but the price index resulting from the aggregation here is for productive services as well. If the supply function is to depend on the same measure of real income, Y, that the expenditure function does, then the two price indexes must be the same, which means that the prices of finished and productive services must be proportionate.

This mathematical appendix is available upon request.

tion later (§ 14). However, the main point here is that for the purposes of this article it is only the *existence*, and not the *form*, of the aggregate supply function which is of importance. We shall return to this point again (§ 14).

6. Let us for the moment ignore the expenditure function in Fig. 3 and concentrate on the relationship between the 45° line and the desired-supply function. Introduce the variable S^* which equals actual, as distinct from desired, aggregate real supply of finished goods and services. Previously we used the fact that national income is equal to aggregate expenditures. Now we note that, by definition, real national income is also equal to the actual real value of finished output, S^*. So the 45° line also represents this equality, *i.e.*, $S^* = Y$.

In a manner completely analogous to that of the discussion of the expenditure function, it can now be showed that the level of income η (Fig. 3) is the equilibrium level determined by supply conditions. For consider the income level Y_4. At this level firms desire to supply the amount S_4, which is greater than Y_4. In other words, if the income level Y_4 is to be maintained, firms must continue supplying less than they actually desire, to the extent $S_4 - Y_4$. Consequently, an effort will be made (via price reductions) to correct this disappointment of desires, and in the process the level of income will change. Similarly, Y_3 cannot be an equilibrium value; for to maintain that level firms must supply more than they actually desire. The only possible equilibrium from the supply side is $Y = \eta$. At this level, since desired and actual supply are equal, there is no stimulus for any change in the system.

If we now consider Fig. 3 as a whole, it is immediately evident that the macro-system we have built up from our Walrasian system is one which can never be at equilibrium. For the income level, Y_0, which equilibrates the demand side of the economy, leaves the supply side in disequilibrium. Conversely, the income level η, which equilibrates the supply side, leaves the demand side in disequilibrium. There is no level of income which will simultaneously equilibrate both of these sets of forces in the economy. What is the economic interpretation of this inability to reach a consistent equilibrium position? This is the problem discussed in Part III. There it is argued that the inconsistency created by the explicit introduction of the aggregate supply function into Keynesian systems provides the key to the theory of involuntary unemployment implicit in Keynesian economics.

7. One more point must be made, an important one for our

later analysis. In the discussion of Fig. 3 it was tacitly implied that there is no way of resolving the inconsistency of having two "equilibrium" positions. There are, however, *a priori* grounds (formulated by Pigou) for claiming that the initial duo-equilibrium itself brings into play automatic market forces which tend to remove the inconsistency.[1] Specifically, suppliers at, say, the income level Y_0 in Fig. 3, will find themselves supplying less than they desire. Hence they will reduce the general price level in an effort to increase their sales. The fall in the price level will in turn increase the real value of the cash holding of individuals. As a result, their willingness to spend out of income will increase so that the whole expenditure function in Fig. 3 will shift upwards. (In other words, the expenditure function is now assumed to depend on the absolute price level, p, as well as the level of real income, Y.) Under certain assumptions, if the price decline continues long enough, the expenditure function can be shifted so far up that it intersects the 45° line at the same income level, η, at which the supply function intersects. (This is the situation pictured in Fig. 5 below.) Thus, a unique equilibrium position is determined and the inconsistency removed.

In addition to these forces there is the more traditional Keynesian effect on the expenditure function through variations in the interest rate. An excess supply will drive interest rates down and thereby raise the expenditure function. If it has sufficient interest elasticity, the expenditure function might eventually be driven up to its position in Fig. 5. It is clear that for the purpose of this paper the interest rate and the price level play completely equivalent roles. Hence, whenever in the subsequent argument the reader will find the phrase "price level," he can add "and interest rate."

As we shall see later, this argument makes no fundamental change in our analysis. At most, it requires that we shift from a static to a dynamic viewpoint. The full implications of these remarks will become clearer in the exposition which follows.

III. The Concept of Involuntary Unemployment

8. Involuntary unemployment involves what might be called "relative coercion": people cannot fulfil their desires as freely as under some other situation which serves as a norm of reference;

[1] The argument of this paragraph is presented in its barest details, since it has already been discussed at length in my article "Price Flexibility and Full Employment," *American Economic Review*, XXXVIII (1948), 543–65. This will be referred to henceforth as "Price Flexibility."

hence in order to give concreteness to the concept of coercion we must first define this norm of reference. Thus, it is theoretically meaningless to speak of involuntary unemployment without introducing a comparison between two alternative models: the actually existing one and some designated norm. The extent of involuntary unemployment is then measured by the difference between the existing amount of employment, and the amount that would have existed under the norm.

I must emphasise that coercion and freedom are defined in a relative sense only. People acting with the "normal" freedom (*i.e.*, under the restrictions to be found in the norm of reference) will (for the sake of brevity) be defined as fulfilling their desires freely. People acting under more than the "normal" restrictions will be said to be coerced and prevented from fulfilling their desires. In what follows our norm of reference is defined as a model in which perfect competition reigns and the economic unit is restricted only by the budget restraint and technological relationships (*e.g.*, the production function). Thus, by definition, our norm is a system of equations. Within this norm of reference the individual will be defined as fulfilling his desires—though he may be poor and unhappy. In other words, an individual will be said to be acting freely as long as he is on his Walrasian demand and/or supply curves.

Partial equilibrium analysis provides an illustration. Consider the classical demand (D) and supply (S) curves for labor (N) in terms of the real wage w/p (Fig. 4). By definition, the demand curve, D, represents the desires of employers under normal restrictions, and the supply curve, S, represents the desires of workers under normal restrictions. Now, if the real wage, w/p, is always at the intersection of D and S, then within this model there can be no involuntary unemployment. No matter how far D shifts over to the left and employment drops, workers will be working as much as they desire: Workers and employers will be fulfilling their desires as long as the equilibrium wage and employment are always at the intersection of the curves. Only if some force entered which established the equilibrium value at, say, the wage $(w/p)_2$ and the employment N_2, a point off the supply curve of labor, could coercion, and therefore involuntary unemployment (to the extent $N_1 - N_2$), be said to exist in the system.

One fundamental qualification must be introduced into the discussion of Fig. 4. If the wage $(w/p)_2$ has been set and maintained by monopolistic tactics of a trade union, it is clearly a distortion to say that "involuntary" unemployment exists in the

economy. (Of course, those workers unable to find jobs because of the union wage policy might be said to be "involuntarily" unemployed; but this involves a completely different usage from the customary one, which implies that the workers are unemployed neither through their fault, nor through that of their brethren.) This paper does not deal with any of these difficulties; it is concerned solely with the definition of involuntary unemployment within an actual competitive framework. Within this framework we can think of the wage $(w/p)_2$ being maintained despite wage flexibility if, for example, the price level were to fall proportionately

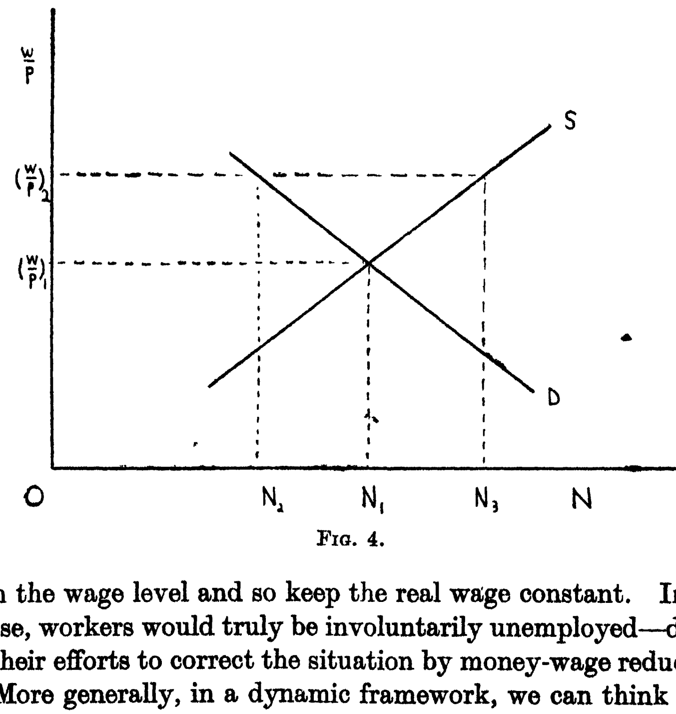


FIG. 4.

with the wage level and so keep the real wage constant. In such a case, workers would truly be involuntarily unemployed—despite all their efforts to correct the situation by money-wage reduction.[1]

More generally, in a dynamic framework, we can think of the price decline as being less than proportionate to the money-wage decline, so that the real wage falls only slowly. During the time it takes for it to fall, workers are involuntarily unemployed; but the amount of involuntary unemployment is continuously decreasing. Eventually, if the real wage falls to $(w/p)_1$ (cf. Fig. 4) a full-employment condition may be re-established.

9. Let us apply the concepts of § 8 to the analysis of Fig. 3. Clearly a full-employment level of income in this model must mean a level of income at which suppliers are able to supply exactly what they desire—in the sense of § 8. In other words,

[1] This is clearly the argument of Keynes in his *General Theory*, pp. 11–13.

suppliers must be employed to the full extent they desire. From the analysis of Fig. 3 it immediately follows that η is the full-employment level of income; for at any other level there would exist a discrepancy between the amount sellers desire to supply, and the amount they actually do. Hence we choose as our norm of reference a model in which this level of income could be maintained indefinitely; *i.e.*, a model whose equilibrium level of national income (for both the demand and supply sectors) is η. This norm of reference is drawn in Fig. 5.

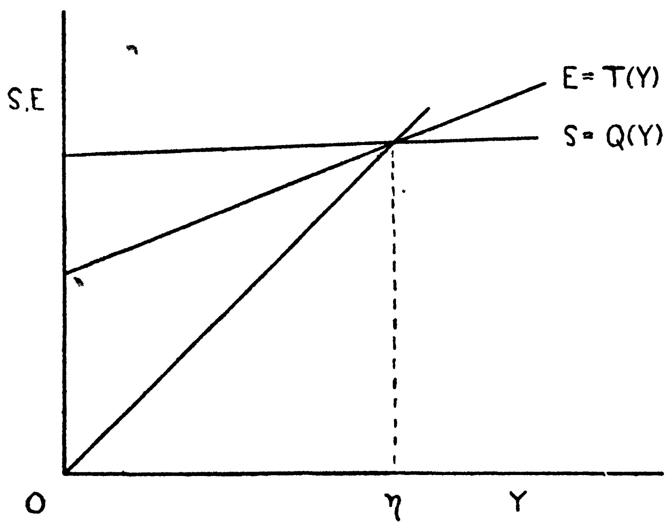


FIG. 5.

Assume now that, in contrast with this norm, the actual desires of individuals are represented by the expenditure and supply curves in Fig. 3. This figure reveals an initial incompatibility of interests—with demanders desiring the income level Y_0, and suppliers the level η. Several possibilities now present themselves. First consider the case in which the prevailing level of national income is always Y_0. In other words, only the desires of demanders influence the determination of the national income, while the desires of suppliers are completely ignored. We would then have as a measure of the extent of involuntary unemployment (U) in the system

$$U = \eta - Y_0$$

That is, involuntary unemployment is measured by the difference between the level of national income in the norm of reference, η, and the level actually prevailing, Y_0 (cf. § 8).

What are the implications of assuming that the income level will remain at Y_0? It is with respect to this question that the remarks of § 7 are pertinent. It will be recalled that at the income Y_0 suppliers will reduce their prices in an attempt to eliminate the discrepancy between the quantity they are selling and the quantity they desire to sell. Now, if these price reductions have no effect on spenders—that is, if the expenditure function does not shift upwards at all, despite all price reductions, no matter how far down they go or how long they are maintained—then the income level will remain indefinitely at Y_0. In the case of such insensitivity of spenders to general price declines we can say that

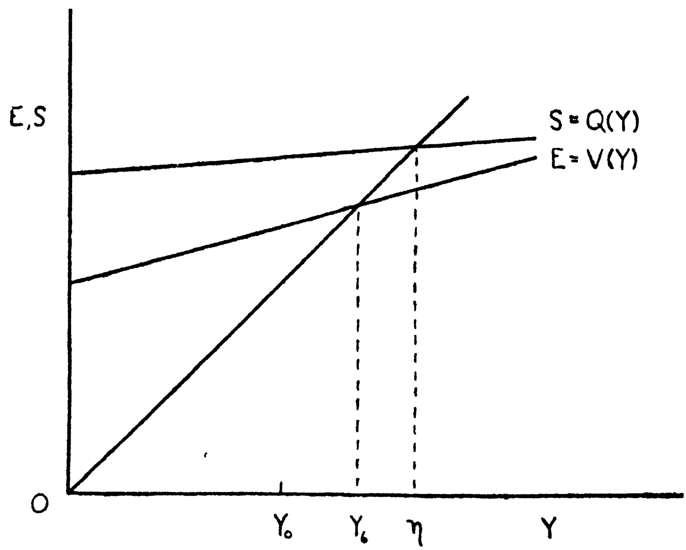


FIG. 6.

suppliers are in a "weak strategic position." At the other extreme is the case where the slightest price decline instantaneously shifts the expenditure function to the position it has in Fig. 5, so that full employment is established. In this case we can say that suppliers are in a "strong strategic position." Midway between these extremes is the case illustrated in Fig. 6. Here it is assumed that by price reductions we can shift the expenditure function upwards; but that (to repeat the phrase of the preceding paragraph) despite all price reductions, no matter how far down they go or how long they are maintained, it is impossible to shift the expenditure function up to its position in Fig. 5. That is, say, the expenditure function cannot be pushed above its position in Fig. 6. Under these circumstances the income level Y_6 will be maintained; correspondingly, the amount of

involuntary unemployment is measured by $\eta - Y_6$. In this case we can say that suppliers have an "intermediate strategic position."

Thus, the strategic position of suppliers is essentially a measure of the sensitivity of spenders to changes in the absolute price level (*i.e.*, to changes in their real cash balances) and interest rate. The strategic position is stronger the smaller the price (interest) decline required to shift the expenditure function a given amount within a given period. Similarly, it is stronger the shorter the time required to shift the expenditure function to a given position by a given price (interest) decline. And, of course, it is stronger the greater the upward shift in the expenditure function corresponding to a given price (interest) decline maintained for a given period. Finally, there is the case where the initial price (interest) decline creates expectations of further price (interest) declines and causes the expenditure function to drop even further downwards.[1] In this case suppliers are clearly in an extremely weak strategic position: all their attempts to extricate themselves from the unemployment situation will perversely plunge them ever deeper into it. Corresponding to each of the above cases, the unemployment will be defined as permanent, temporary or prolonged, according to the strategic position of the suppliers.[2]

There is one further (and, perhaps, even more fundamental) sense in which we can speak of suppliers as being in a weak strategic position. Assume that we start out with the incompatibility of Fig. 3, but that by a series of price declines we are finally able to reach the situation of Fig. 5. We can conceive of two opposite ways in which this dynamic adjustment might take place. The first is the one that has been assumed up to now in this section. The income level starts out at Y_0 (cf. Fig. 3); as the price level falls, the desired-expenditure function rises, and for each period of time the actually prevailing income is determined by the intersection of this function with the 45° line, until finally the income level η is reached. At the other extreme we might consider the income starting out at η and remaining there all the time the expenditure function is moving upwards. In other words, under the first method the prevailing income is always at a level desired by demanders, throughout the adjustment process; while under the second method it is always at the level desired by suppliers.

In our economy it is easy to think of suppliers selling less than they desire; but it is difficult to conceive of demanders buying

[1] Cf. "Price Flexibility," § 11. [2] *Ibid.*, p. 564.

more than they desire. Hence, when we start off from a situation such as that of Fig. 3, it is the first type of adjustment that takes place. Thus, throughout the period of adjustment, even if income finally succeeds in reaching η, demanders are obtaining an income level they desire, while suppliers are not. This is another very real sense in which suppliers are in a weak strategic position relative to demanders.

10. Until now we have dealt with involuntary unemployment; but using exactly the same concepts of § 8 we can also define involuntary over-employment. Consider the case where the desired expenditure function is $E = W(Y)$ as in Fig. 7. This situa-

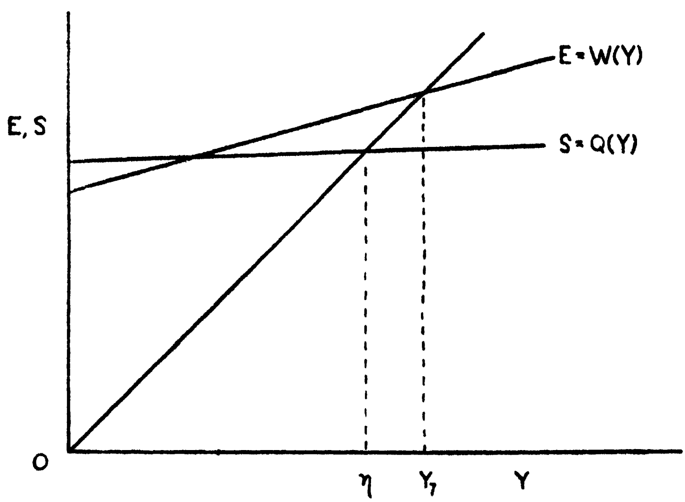


FIG. 7.

tion implies that despite price increases suppliers are unable to bring the expenditure function down to the point where it intersects the 45° line at η. In brief, the level of national income desired by spenders (Y_7) is greater than that desired by suppliers. If the level of national income is actually Y_7, then a measure of the extent to which suppliers are over-employed is the negative quantity

$$U = \eta - Y_7$$

That is, involuntary over-employment is measured by the difference between the level of national income in the norm of reference, and the level actually prevailing. Clearly, the same concept applies when suppliers do succeed in bringing the expenditure function down somewhat, so that an intermediate level of national income—between η and Y_7—prevails.

A situation of over-employment may well have existed during the War. Here the Government provided almost an unlimited demand for goods, which was not diminished by higher prices. Then it resorted to patriotic appeals to persuade the supplier to produce more than they really desired. It might be argued that this patriotic appeal caused an upward shift in the supply function itself, so that suppliers were "really not" involuntarily over-employed. The danger in this type of argument is that eventually it will define away the whole concept of involuntary action. It leads to such nonsense statements as: a man held up at the point of a gun "voluntarily" gives up his wallet because he "desires" to save his life! This example simply points up the necessity of stating a norm of reference (arbitrary as it may be) whenever we wish to speak of involuntary actions. In our economic norm suppliers are presumed to be acting like "economic men," completely devoid of any nationalistic motivations. Hence, when they are influenced by patriotic appeals, they can properly be said to be acting involuntarily.

Another way in which suppliers can meet a situation of over-employment is by rationing. That is, if price increases prove ineffectual in reducing the expenditure function sufficiently, suppliers may decide that nevertheless they will produce only the output they desire, and allocate it among consumers on some arbitrary rationing basis (first come first served, fixed percentage of purchases in previous years, etc.). In this case it is the spenders who are forced into involuntary actions: they must buy less than they actually desire.

The elimination of peace-time involuntary over-employment seems to be a simpler task than the corresponding elimination of involuntary unemployment. (Once again the reader is reminded that we are abstracting here from all monopolistic forces in the economy.) This follows from the supposition that price rises are a much more effective means of shifting the expenditure function down, than price declines of shifting it up. There is no inconsistency here; as in many other places in economic theory, there is no reason to expect symmetry of reactions. Thus, under conditions of over-employment the strategic position of suppliers, in the first sense of § 9, is stronger than that under unemployment. The suppliers' strategic position is also stronger in the second sense; for the income level may remain at η during the whole period of adjustment in which the expenditure function is being forced down. For example, suppliers may resort to rationing during this whole period.

IV. Keynes and the Classics

11. From the perspective of the preceding analysis it is now possible to examine, and contrast, the assumptions of the Keynesian and classical positions. Consider first the conventional Keynesian analysis of §§ 2—3. Explicitly, the supply function is not introduced at all. Implicitly, it is assumed that under unemployment conditions suppliers are in a weak strategic position, in both of the senses of § 9. First of all, spenders respond little, if at all, to price-level and interest-rate reductions.[1] Secondly, the actually prevailing level of income is always determined by the intersection of the expenditure function and the 45° line. Hence, there is no need to introduce the supply function, since the prevailing level of income is determined by demand factors alone. This level of income is then compared with an arbitrarily selected level, designated as the full-employment income, and the difference used as a measure of unemployment. The advantage of the preceding argument is that it makes this element of arbitrariness unnecessary: the full employment level of income is defined by the same analytical apparatus which determines the actually prevailing level of income.

In addition, we differ from the usual Keynesian analysis in saying that the income level need not remain at the original intersection of the expenditure function with the 45° line. True, for each period of time the level of income is determined by the intersection of the expenditure function with the 45° line. But this level increases over time as the expenditure function is pushed upwards.

It is important to understand the dynamic theory implicit in this interpretation of the Keynesian theory.[2] Essentially we divide the economy into two markets: one for finished goods and services, and the other for productive services. From the preceding paragraph it is clear that we assume that equilibrium is rapidly restored in the first market. In other words, if a disturbance should suddenly shift the expenditure function downwards, the level of income would quickly fall to the new intersection point with the 45° line. All this means is that undesired inventories are rapidly eliminated from the system (cf. § 3). Thus no stimulus for any further movement in prices comes from the finished-goods market. Nevertheless, the system continues with its dynamic

[1] Actually, Keynes never considered the effect of the price level on the expenditure function; but, as I have argued elsewhere ("Price Flexibility," pp. 563–4) it does not seem too difficult to extrapolate his position on this matter.

[2] In the formulation of this paragraph I have benefited from discussions with Kenneth J. Arrow of the Cowles Commission for Research in Economics.

adjustment due to the fact that the market for productive services is not in equilibrium. By analogy, one might say that the involuntary unemployment in this market represents "undesired inventories of productive services." In any event, the presence of unemployed productive services drives the price level down as long as equilibrium is not re-established in this market too.

12. In the classical position, involuntary unemployment could not arise in this way. For a basic assumption of that position was Say's law; and under this assumption full employment was always assured.

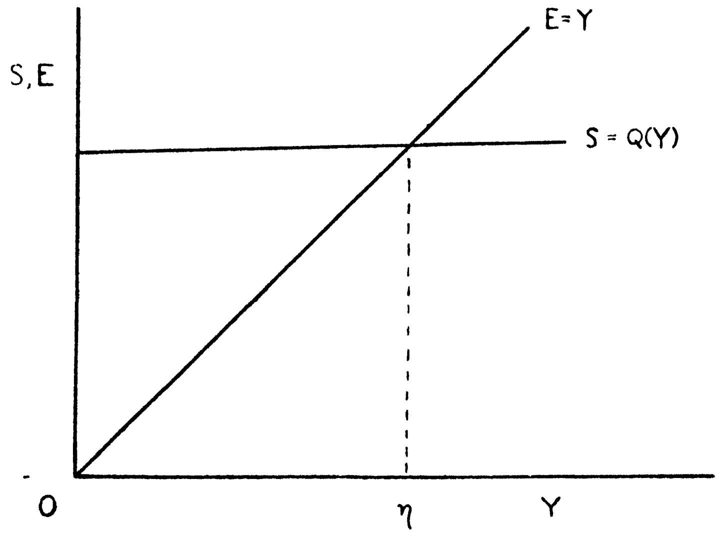


FIG. 8.

The meaning of Say's law is that regardless of the level of income, people desire to spend their entire incomes; or, what is the same thing, people will not use their money incomes to add to their cash holdings. In the words of J. S. Mill, in his chapter on Say's law: [1]

> Could we suddenly double the productive powers of the country, we should double the supply of commodities in every market; but we should, by the same stroke, double the purchasing power. Everybody would bring a double demand as well as a supply: everybody would be able to [and, presumably, would] buy twice as much, because everyone would have twice as much to offer in exchange.

What does this mean as far as the shape of the aggregate expenditure function is concerned? Under Say's law the expenditure function must always coincide with the 45° line, as in Fig. 8. This

[1] J. S. Mill, ***Principles of Political Economy***, **Book III, Ch. XIV, § 2.**

coinciding is the graphical counterpart of the statement that at every level of income people want to spend their entire income. Analytically this means that the expenditure function has the form $E = Y$. Under this assumption it is clear that there exists only one equilibrium level of the national income, a level jointly desired by both spenders and suppliers. Therefore, in the classical system full employment is always established; the income of the community is limited only by supply factors. Thus, Say's law, far from precipitating the economy into a state of unstable equilibrium (as is sometimes assumed), instead removes a possible inconsistency from the system, and insures the rapid achievement of a unique, stable, full-employment equilibrium.

13. Keynes, of course, violently disagreed with the assumption of Say's law. This is the sum and substance of his liquidity-preference theory: Out of any given income, people may have a net desire to add to their cash balances. Hence, the expenditure function need not coincide with the 45° line; and hence, the level of income established by the intersection of the 45° line and the expenditure function need not be the full-employment level. Thus Keynes denied the basic proposition of classical economics: namely, that the economic system would automatically generate full employment.

It should, however, be emphasised that *the classical position as revised by Pigou no longer needs Say's law.* In this system automatic full employment is brought about by interest, wage and price flexibility regardless of the form of the expenditure function.[1] Correspondingly, as I have argued elsewhere,[2] the Keynesian attack shifts its concentration from Say's law to the dynamic instability of our economic system—its inability to restore full employment within a reasonable time after being subjected to a shock of one type or another.

Actually it can be said that everyone simultaneously accepts and rejects Say's law: rejects it, in the sense that no one believes the short-run-expenditure function must have the form it has in Fig. 8; accepts it, in the sense that everyone recognises that in the long run people want goods, and not money.

V. The Argument Generalised

14. There have been many occasions in this paper where the analysis has pressed hard against the confines of our oversimplified model. Essentially, the trouble is that the model explicitly pro-

[1] Cf. "Price Flexibility," §§ 1–8. [2] *Ibid.*, § 14.

vides for only one price level (finished goods), while implicit in the analysis is that of yet another (productive services). This is one reason why the aggregate supply function appears like such a monstrosity. Actually, it should depend on both of these prices; however, our oversimplified assumption that these prices are proportionate (cf. § 5, above) forces us to write it as dependent on neither. Nevertheless, it was claimed in § 5 that the general analysis developed on the basis of this oversimplified model could be readily extended to more realistic ones. This and the following sections attempt to make good this claim.

First, we shall briefly sketch the way in which the concepts of this article appear in a somewhat more extended model. Let Y = national income, r = rate of interest, p = absolute price level, E = aggregate demand for finished goods, N^D = demand for labor, N^S = supply of labor, M^D = demand for cash balances and M^S = supply of cash balances. It must be emphasised that these last five variables represent *desired* quantities demanded or supplied—in the sense used in § 2 and throughout this paper. Consider now the following system :—

$$
\begin{aligned}
&(1)\ E = \psi\,(Y, r, p)\\
&(2)\ Y = \phi\,(N^D)\\
&(3)\ E = Y\\
&(4)\ N^D = f(w/p)\\
&(5)\ N^S = g(w, p)\\
&(6)\ N^D = N^S\\
&(7)\ M^D = L(Y, r, p)\\
&(8)\ M^S = \text{const.}\\
&(9)\ M^D = M^S
\end{aligned}
$$

This model divides up the economy into three markets : finished goods, labor and money.[1] For each market there are two behavior equations and one equilibrium condition. Starting from the last triplet of equations, we have in (7) the desired-demand for cash balances (*i.e.*, the liquidity preference equation); in (8), the desired-supply of cash balances (assumed for simplicity to be a constant); and, in (9), the condition that the money market is not in equilibrium unless desired supply and demand for money are equal. The next triplet furnishes corresponding information for the labor market. Here we have followed Keynes in assuming that the

[1] Implicit in the model is yet a fourth market : that for bonds. This can be ignored since, by "Walras' law," it is considered here as residual. Cf. D. Patinkin, "The Indeterminacy of Absolute Prices in Classical Economic Theory," *Econometrica*, XVII (1949), §§ 6 and 14.

supply of labor depends on money, and not real, wages; but this is not a necessary part of the argument which follows. The demand for labor is assumed to depend on real wages; this is not essential to the argument either.

In the first triplet, the first and third equations are quite familiar. The only difference between equation (1) and the expenditure function used throughout this paper is that (1) provides explicitly for the possible influence of the rate of interest. Equation (3) is the equilibrium condition for the finished-goods market, as explained in § 3. Equation (2) is the only new-comer : this is the production function.[1] In this model the production function is completely interchangeable with the aggregate supply function. This follows from the relationship between equations (2) and (4). If suppliers of finished goods are faced with a given real wage rate, the amount of labor they will purchase is determined by (4). If we insert the resulting labor input in (2), we get the output of finished goods that suppliers will provide for this labor input, *i.e.*, at the designated real wage. In other words, by substituting (4) into (2) we come out with the familiar aggregate supply function. It differs from the one used in this paper in that it depends on the real wage rate, now no longer (cf. § 5) assumed to be constant.

The use of the production function in (2) instead of the equivalent aggregate supply function was deliberate. There is no doubt that the former function is a much more familiar and accepted tool of economic analysis. In fact, one can find in the literature several examples of models very similar to the one above.[2] Consequently, these models have implicit in them the aggregate supply function developed in this paper. My only objection to these other presentations is that they make no satisfactory interpretation of the supply function; in particular, they fail to see the relationship between it and involuntary unemployment. This is the problem we shall now examine.

Assume, for simplicity, that our model is consistent :[3] that is, it has a solution. Let the solution values for income and employment be $Y = \eta$ and $N^D = N^S = \sigma$, respectively. Then, by definition of the functions of our model, these are the full-employment values of the respective variables. Assume now that a sudden disturbance in the economy causes a downward shift in the ex-

[1] For simplicity we are assuming the amount of capital to be held constant. Hence the production function depends only on the rate of labor input, N^D.

[2] As a case in point cf. Franco Modigliani, "Liquidity Preference and the Theory of Interest and Money," *Econometrica*, XII (1944), 47–8.

[3] The implications of an inconsistent model are discussed below, § 16. On this whole paragraph see in particular § 11, above.

penditure function. This sets up a whole chain of dynamic events. During this process there is no reason why any of the equilibrium conditions—(3), (6) and (9)—should be satisfied. We assume, however, that equilibrium in the finished goods and money markets is quickly re-established. The only pressure for continued movements of the variables comes from the failure to satisfy (6). (Cf. above, § 11.) Correspondingly, as long as this equilibrium condition is unsatisfied, the level of employment is less than σ. Hence, by definition, there is involuntary unemployment within the system. (Cf. above, § 8.) The level of this unemployment will continue to fluctuate as the system tries to correct the disequilibrium in the labor market. In some cases it is possible that the system will finally succeed in restoring a full-employment equilibrium.

15. The preceding section extended the analysis by applying it to a model with more equations. Another method of extension is to go back to the maximising behavior from which the equations themselves are derived. In this way it is possible to make the concept of involuntary action even more vivid.

Consider, for example, the demand function of an individual for a certain commodity. Assume that the norm is given by the condition that he must stay within his budget. Then inability to be on his demand curve (for example, the commodity may be rationed by the government) means, in mathematical terms, that besides being subject to the (normal) budget restraint when maximising utility, the individual is also subject to at least one additional restraint or side condition (viz., that arising from the rationing). This additional restraint is an indication of the extent to which he must act involuntarily. On the other hand, an individual who maximises his utility subject only to the (normal) budget restraint (say, an individual exempt from the rationing regulations), is said to be acting freely and fully satisfying his desires. This interpretation can readily be generalised to any type of maximising activity.

16. So far we have dealt with particular extensions. Let us now see how the basic concepts presented in this article can be extended to a perfectly general system.

Consider a model with n equations. For the moment, assume that the model is a static one. Its n equations will be of various types: some will be behavior equations for various sectors of the economy, some equilibrium conditions and some definitions. Assume that the behavior equations represent behavior under the restrictions of the norm; in other words, assume that they represent the desires of the respective sectors, in the sense used in

this paper. Mathematically, there are two possibilities: the static system may be consistent, or it may be inconsistent. To say that the system is mathematically inconsistent is equivalent to saying that the desires of people, as reflected by this system, are incompatible: they cannot all be satisfied simultaneously. Let us examine in detail the implications of this proposition.

If the system is inconsistent, then there exists no point (*i.e.*, no set of prices, quantities, incomes, etc.) which will simultaneously satisfy all the equations of the system. In other words, no matter at what point the economy may be, some of its behavior equations cannot be satisfied; that means, no matter what happens some people must be off their (desired) behavior curves, and hence must be acting involuntarily. From this it follows that the system can never be in equilibrium; for no matter at what point it is, it cannot remain there; the members of the economy left dissatisfied at that point will try to achieve their desired behavior, and thereby move the system away from whatever point it happens to be at.

An example of such an inconsistent static system is provided by Fig. 3—under the assumption that nothing can be done to move any of the curves presented in it. As pointed out in the discussion of this figure (§ 6), no matter at what point the system happens to be—that is, no matter what the income and the price level (for by the preceding sentence we are assuming that the expenditure function is completely insensitive to the price level)—it is impossible for both demanders and suppliers simultaneously to fulfil their desires; at least one of them must be forced into involuntary action. Correspondingly, the system can never be at equilibrium.[1]

Now assume that the static system is consistent. Does that mean that everyone in the society will always fulfil his desires? In order to answer this question we must turn to dynamic analysis. The general proposition that can be made is: The existence of a consistent equilibrium position for the static system is a necessary, but not a sufficient condition for the elimination of involuntary action within the economy.[2] In other words, the argument of the preceding paragraph has shown that the system cannot be free of involuntary action unless it is consistent; but that does not mean that once it is consistent we can be sure of the elimination of involuntary action. For example, assume that the system does have the consistent solution represented in Fig. 5. Assume further

[1] Another example of an inconsistent static system is provided by Fig. 3 and § 3 in "Price Flexibility."

[2] Cf. "Price Flexibility," p. 560, footnote 30.

that due to a certain disturbance in the system the expenditure function falls to its position in Fig. 3. This sets up price-level and interest-rate declines, and we now assume that these declines shift the expenditure function upwards. But in certain cases it may be that, due to dynamic expectation factors, no matter how far the price level and interest rate falls, it is impossible to shift the expenditure function back to its position in Fig. 6.[1] Under these assumptions we may continue to have involuntary action within the system for an indefinitely long period.

But we need not go to such an extreme case—again, a mathematical, not necessarily a realistic, extreme. Assume now that by price-level and interest-rate declines the expenditure function is eventually brought back to its position in Fig. 5. But all this takes time; and during this period of movement and adjustment some individuals must be off their behaviour curves; that is, they must be forced into involuntary action.[2] Here, too, we can define our concept of strategic position. The strategic position of any behavior group is defined in terms of how much it must give up its desires, for what period of time. The one that can stay "closest" to its desired behavior curve during the period of adjustment is the "strongest."

From the framework just described, we can appreciate the major significance of the classical position. It is, in brief, that the behavior equations are so sensitive to price and interest changes that the market will automatically and quickly establish a position in which everyone's desires are satisfied. That is, the market will make the desires of people consistent. Correspondingly, we can appreciate the nature of the Keynesian argument: its denial of the efficacy, and even existence, of these delicate balancing operations; and its insistence that the end result of leaving the market to its automatic functioning must inevitably be the frustration of desires somewhere in the system.

DON PATINKIN

Hebrew University,
Jerusalem.

[1] This particular argument is developed in much greater detail in "Price Flexibility," § 12.

[2] Cf. above, § 9; "Price Flexibility," § 14.

EQUAL PAY FOR EQUAL WORK

1. The Royal Commission on Equal Pay [1] was appointed between D Day and VE Day, and reported in October 1946 on a claim which was then blessed and shelved.[2] It would be a pity if this led us to overlook a report which not only deals exhaustively with one of the battle-cries of the day but also illuminates a problem which is of interest to all economists. The economist is accustomed to reckon on forces of supply and demand which he believes to be pervasive and persistent, but he recognises also the presence of pressures, prejudices and conventions which deflect or dam the market forces. The problem is to know how much any given outcome will depend on the one or the other. Marshall emphasised the cumulative effect of custom on social structure, but held that "the direct effects of custom in causing a thing to be sold for a price sometimes a little higher and sometimes a little lower than it would otherwise fetch, are not really of very great importance, because any such divergence does not, as a rule, tend to perpetuate and increase itself; but, on the contrary, if it becomes considerable, it tends itself to call into action forces that counteract it." [3]

[1] Royal Commission on Equal Pay, 1944–46. *Report*. (Cmd. 6937 of 1946.) *Minutes of Evidence* 1–15 and *Appendices I–XIX* are separately published.

[2] The Chancellor of the Exchequer stated in the House of Commons on June 11, 1947: "As a broad affirmation of general principle, the Government accept, as regards their own employees, the justice of the claim that there should be no difference in payment for the same work in respect of sex. But such acceptance leaves unsettled many difficult questions of interpretation. It also leaves open the very important practical question of when effect should be given to this principle, and over what range of cases. The Government are definitely of the opinion that this principle cannot be applied at the present time. In making proposals to Parliament for incurring additional expenditure and for extending the social services, the Government must be the judge of priorities." (438 H.C. Deb. 5 s., p. 1069.) History repeats itself. The Atkin Committee on Women in Industry was appointed in September 1918 and reported in April 1919 (Cmd. 135 and 167 of 1919). On May 19, 1920, the House of Commons adopted without a division a resolution in favour of equal pay in all branches of the Civil Service and under all local authorities. On June 17, 1920, the Prime Minister told the House that the Government did not intend to take action on the resolution, pending the setting up of Whitley Councils. "The House has really to decide between these varied recommendations, which add considerable sums of money to public expenditure for the various improvements which we all desire, but which we cannot afford." (129 H.C. Deb. 5 s., pp. 1539–80, and 130 H.C. Deb. 5 s., pp. 1443–4.)

[3] *Principles*, VI, iv, 1.

" Now, as ever, the main body of movement depends on the deep silent strong stream of the tendencies of normal distribution and exchange; which 'are not seen,' but which control the course of those episodes which 'are seen.' For even in conciliation and arbitration, the central difficulty is to discover what is that normal level from which the decisions of the court must not depart far under penalty of destroying their own authority." [1] On the other hand is the view expressed by Mrs. Wootton to the Commission that " all wages . . . are to be explained more in terms of conventions than as the result of strictly economic factors." [2] In this issue the relation between the wages of men and women provides a crux. It is also an instructive case of the economic relations between groups, which present such problems in ethnically diverse societies.

2. The Report enables us to study these things with the help both of the nine economists [3] who, with Sir David Ross, wrote the arguments which make Appendix IX to the Minutes of Evidence a symposium in applied economics; and of all the facts and arguments gathered and discussed by a Commission which included Professor D. H. Robertson.

3. The Commission was instructed to examine the existing relations between the pay of men and women, and to consider the probable consequences, social, economic and financial, of making equal pay the rule. This required it to raise many issues which lie beyond the usual beat of the economist, but in dealing with the practical claim this paper will confine itself to the main economic issues which it raises, and these seem to be three. First, we have to make clear what " equal pay for equal work " can mean and does in practice mean. Given a definition, we can then raise the question of fact: what is the extent of unequal pay for equal work in Great Britain to-day? This leads to the question of principle: so far as unequal pay exists, why does it arise? From our answer to this question our judgment on the economic consequences of making equal pay the rule will follow by implication.

I

4. There seems to be a forthright meaning for " equal pay for equal work ": " the Trade Union Movement has always

[1] *Principles*, VI, viii, 10.

[2] Appendix IX *to Minutes of Evidence*, 10, 2.

[3] P. Sargant Florence, R. F. Harrod, Sir Hubert Henderson, J. R. Hicks, D. H. Macgregor, A. C. Pigou, Mrs. Joan Robinson, W. Hamilton Whyte, Mrs. Barbara Wootton.

taken the commonsense interpretation that it refers to 'the rate for the job.'"[1] This has a definite meaning as long as we are looking at one and the same job: if there is a recognised rate to be paid when this place is filled by a man, that same rate shall be paid when it is filled by a woman. But it seldom happens that the jobs which any two persons hold are quite the same in all respects, and "equal work" implies work not only in the same job but also in "similar and comparable jobs."[2]

5. The first issue then is, what jobs are sufficiently "similar and comparable" for the claim to apply to them? It is natural to suppose that only jobs of a similar description should be compared, yet in practice very different jobs are sometimes compared with one another, by reference either to labour grade or to job content. The labour grade may be defined by the level of ability and training which one must have to get the job; or be only, as it were, the heading of a list of jobs reckoned to be roughly equal to one another in their requirements, so that "Grade 2 labour," for instance, is then the kind of labour that can take on a job in the Grade 2 list. In either case the rule is that two jobs, however different in description, can provide "equal work" if they will be assigned to labour of the same grade. This is one sense in which the claim for equal pay is made: "for each occupation or particular grade of work there should be established a common minimum rate of pay"[3] without differences in the rate based on any differences there may be between the jobs done by men and by women within that occupation or grade. But the difficulty is that these differences may be big. This difficulty is tackled by the second way of comparing jobs, which is to assess the content of each job according to some scale, which may be explicit and detailed, as in systems of point rating,[4] or rough and ready, but such in either case as an arbiter must find himself using when he decides the fair rate for one job by reference to the accepted rate for a job of another kind.[5]

[1] *Questions and Answers by the Trades Union Congress on Equal Pay for Women* (T.U.C. 1947), p. 5.

[2] *Ibid.*

[3] Memorandum of evidence submitted by the Trades Union Congress to the Royal Commission on Equal Pay, 1945, para. 151. (Appendix VI to *Minutes of Evidence.*)

[4] A scheme for "point rating applied to industry generally" will be found in C. A. Lidbury, *A National Wages Policy*.

[5] "The margin allowed to shopmen and general butchers by the award as it now stands is 11/6 per week, which is not quite half that allowed to the fitter. Now, in my opinion, the general butcher is a tradesman equally useful, necessary, and indispensable in his sphere of industrial operations as a fitter in the iron industry. It is true that the butcher in cutting meat has not to work to the

The rule here is, that two jobs can provide "equal work" if on a job analysis they prove to contain the same aggregate of points awarded for skill and strength, responsibility, risk and discomfort, and the like. This second method will apply the claim less widely, in one way, than the first, because it will bring out the differences between jobs that men and women are doing within the same occupation or grade. But, in another way, it extends the claim much more widely, because it raises the possibility of fixing a fair rate for women in any job, even when that job is "woman's work" alone, by comparison with men's jobs of a different description; and so perhaps of adjusting women's wages towards men's generally. It may have been this that was in the minds of the Trades Union Congress when it submitted that "it cannot be argued even when there is a clear grading of operations as men's and women's work respectively that the differences in the work always justify the existing differences in remuneration." [1]

6. On these issues the Commission stated its doubt whether "very diverse activities" can ever be rated against one another. "We take it that, in the context of our enquiry, equality signifies at least some degree of similarity between employments: but we are unable to discover any general principle in the light of which to decide *what* degree of similarity is required in order that the work done in two employments may be described either as being unequal or as being equal. For instance the teaching of infants and the teaching of grown boys are in some respects similar and in other respects dissimilar employments. . . . In determining, therefore, the range of our discussion we have had to follow the guidance of common sense as best we can." [2]

The upshot is, in terms of the argument above, that the Commission took the claim for equal pay to cover potentially any two jobs of the same grade within the same industry; but with some doubt how far jobs of different description, even

---

same exactitude and precision as the fitter, but he has to understand the anatomy of oxen, hogs, and sheep, and be able to cut to the requirements of the retail trade with a certain amount of care and skill so as to avoid waste to the employer, and do justice to the employer's customer. . . . Therefore, I do not think that up to the present the shopmen and general butchers' claims and qualifications have been properly recognized. I do not think that they were properly recognized in the increased margin of 1/6 per week which I gave in the last award. I think they are entitled to an increase in the margin for skill, which I propose to fix at 2/6 per week." (Award of the Deputy President of the Australian Commonwealth Arbitration Court, 1925. *Commonwealth Arbitration Reports*, Vol. 22, pp. 803–4.)

[1] *Op. cit.*, para. 152.

[2] *Report*, para. 14.

within one industry, can be assigned to common grades; and with no expectation that comparisons can be made across the frontiers between industries.

7. So far we have been asking, How alike must two jobs be to provide "equal work"? But two jobs can provide "equal work," without the workers in them having equal outputs per hour. Surely the "equal work" for which equal pay is claimed must be work not only of the same *kind* but of the same *amount*? When "the rate for the job" is a time-rate, the claim implies that differences in output are inconsiderable, or at least not greater between man and woman than between man and man. Even when "the rate for the job" is a piece-rate, though earnings per hour will now vary with output, the slower worker is still worth less because he raises oncost per unit of output. Two workers, again, may get the same output, but only if one is given adjuncts that the other does not need.[1]

8. It may also be urged that the nexus between concern and worker is not restricted to the payment of so much money for a parcel of work defined by kind and amount, but is an association in which the worker's worth to the concern in any week depends in part on his worth to it in the long run. The Commission distinguished "between the value of the services rendered in relation to a given 'unit' of work, whether the unit be a job or a time, and the overall value of the employee's services over the whole period during which he or she remains in employment."[2] A worker will not always be needed to work at the same job; and of two workers who are of the same net value in a given job, the one who can more readily turn his hand to another one (be it only an occasional heavy lift) is likely to be worth more to the concern in the long run. If the law limits the overtime that one group of workers can do, or forbids their working a night shift, that also reduces their overall value. Two types of worker, again, may be of equal value at the bench, but give rise to unequal costs of administration: one may make less claim on personnel management, need fewer amenities, be absent less or keep time better, or be less temperamental and more adaptable. Where workers take some time to train, the worker who is likely to stay on for some time after training is more

[1] "We thought it would need three women for the output of two men, but, by the help of our production engineers, new devices and labour aids in one way and another, I am glad to say that the output is almost equal one for one." (Minister of Labour, on war-time experience, at Norwich, Feb. 4, 1945. Quoted in T.U.C. *Memorandum of Evidence*, para. 22.)

[2] *Report*, para. 10.

worth having than the worker who is likely to leave soon. By the same token, firms usually look to lower grades to supply experienced workers for promotion, and this gives another reason for setting more value on the worker who is more likely to stay on. In general, a worker who expects to spend his life in the trade is more likely to be keen and willing to learn than one who hopes to leave it before long.

9. In effect, then, there are four tests of what is the " equal work " for which an equal money payment is due. Two workers may be held to have done " equal work " when, working in similar jobs, they have

(*a*) worked for equal times;

(*b*) turned out equal gross products;

(*c*) turned out equal net products, after allowance for adjunct-costs and oncost differentials;

(*d*) satisfied one of the above conditions *and* are fully interchangeable as parties to a long-period association between worker and concern.

The Commission found that in practice the claim for equal pay comes down to " the rate for the job," and we can now see that this means accepting test (*a*) or test (*b*), according as the rate happens to be a time-rate or a piece-rate, and rejecting all differences that are based on test (*b*) when it is test (*a*) that is used, and on tests (*c*) and (*d*) when either (*a*) or (*b*) is used. Such differences are rejected either because the base is held not to exist, or because, though some base does exist, it is held to constitute no just ground for differentiation.[1]

II

10. In its factual survey the Commission kept a look-out for any " overlap area "—" a range of jobs on which men and women appear to be working together interchangeably." [2] Interchangeability here, I think, does not go as far as test (*d*), but only requires that each sex can be and somewhere is put on

[1] This interpretation differs from that of the Atkin Committee, which held that the claim could only be for " pay in proportion to efficient output." Another interpretation, noted by Mrs. Webb in her *Minority Report of the Atkin Committee* (II, 9) is " equal pay for equal efforts and sacrifices," which she took to mean " the National Minimum, and the Occupational or Standard Rate upon a time-work basis." The same interpretation of the claim, but with a different application, is noticed by Edgeworth (" Equal Pay to Men and Women for Equal Work," ECONOMIC JOURNAL, XXXII, December 1922).

[2] *Report*, para. 10.

to any of the jobs in the range. The Commission found a good many overlap areas, but these often turned out to be smaller than appeared at first sight: in the Post Office, for instance, women telephonists do only the day work, men only the night; in school teaching, " the sex of the pupils may make no difference to the demands made on the teachers' time and ability but it does in practice impose a restriction on the extent to which men and women can be interchanged." [1] The field divides into four sections. Since an overlap area is the more likely to appear, the more the work depends on brain not brawn,[2] it is the section of *public service* which provides the clearest if not the largest instances of overlap: especially the Civil Service, in which the Commission found " the conditions relevant to the application of equal pay in a highly simplified form. Such conditions include exact gradation of jobs, perfect interchangeability of men and women employees within each common grade, and, again within each common grade, presumptively equal efficiency of the two sexes, at least during the period when each is actively at work." [3] In this section there also fall the overlap areas in teaching and nursing; that in nursing is potentially much the biggest, though to establish an overlap outside mental hospitals there is only one man to each twenty-five women. In the second section, *manual work in manufacturing*, demarcation is the rule: " there seems to be no doubt that over the larger part of the field of manufacturing industry the jobs being done by men and women were different and were recognised to be different, even though they might sometimes be called by the same name." [4] But one big overlap area is found in the weaving of cotton, with a smaller area in the weaving of woollens. In engineering, " all we can say with certainty is that there is a definite overlap area . . . at the size of which we cannot make even a guess." [5] The only other areas worth separate mention are in clothing, french polishing and silk. The third section, that of *manual work in distribution*, is made up mostly of shop assistants, among whom there is " a substantial potential field of identical work," but " the extent to which overlap areas actually exist . . . is likely

[1] *Report*, para. 84.

[2] " Intelligence is the most obvious measurable characteristic. There are no significant differences between men and women on scores obtained with the Army Alpha, Otis self-administering, and similar tests. When special abilities required for some forms of intellectual exercise are examined, women are superior in verbal tests, and men in arithmetical: the differences, however, are not large." (Memorandum by Dr. Aubrey Lewis, Appendix X to *Minutes of Evidence*, 5, 5.)

[3] *Report*, para. 75. [4] *ibid.*, para. 142. [5] *ibid.*, para. 173.

to vary much between one retail trade and another." [1] In the last section, *non-manual work in private industry and commerce*, it is among the million "other clerks" of the Census that overlap areas appear, mainly in those big concerns which have standard grades and scales of salary for their office staff. The Commission attempted no estimate of the number of women in all the overlap areas together, that is, of the total on whom "equal pay" would take its first effect, but to have at least an order of magnitude for the upper limit, I think we can say that in 1939 the number could not have been more than 300,000 in each of the four sections, and in the last three it may have been much less. This may be compared with the total of over 6·2 million women recorded as occupied by the Census of 1931.

11. In some of the overlap areas, "equal pay" is the rule now. Equal time-rates are found where men and women of the fee-charging professions are engaged at salaries, but are rare among wage-earners, where it is piece-rates that provide the common rate that rules for men and women in weaving and beam warping [2] in cotton and (partially) in wool; and, less extensively, in clothing and hosiery. But it is "unequal pay" that predominates. Unequal piece-rates appear in various forms: under a nominally uniform list, through the custom of keeping the better-paying jobs for the men; through the women having a separate price-list, or working at a fixed percentage below the standard price-list, as an offset to the higher incidental expenses said to go with women's work; and, most important, in clothing and engineering, through piece-rates being set in accordance with unequal time-rates. Here the understanding is that a piece-rate shall be set so as in practice to yield the representative worker not less than an agreed rate of earning per hour. That hourly rate is lower for women: if their rate of output were lower in the same proportion, then the same piece-rate as the men's would give them no more than their hourly rate; but, in fact, their rate of output often runs higher than this, and their piece-rates are correspondingly lower.[3] But most often "unequal pay" in the overlap areas comes through unequal

[1] *Report*, para. 232.

[2] Among the cotton beamers, twisters and drawers in, "both men and women are paid the same rate, but the women pay the men a certain sum each week in order to lift for them." (Evidence of Women's Industrial Council and Fabian Women's Group before the Atkin Committee, quoted in note to p. 280 of *Minority Report*; Cmd. 135 of 1919.)

[3] *Report*, para. 152; see paras. 174 and 175 for engineering, 213 for machine brushes, 189(6) and 227(*d*) for clothing.

time-rates. In manual work it is so in french polishing and (partially) in wool-combing and clothing. In clerical and administrative work and in retailing it holds almost universally. To sum up, then, we may say that "equal pay" is rarer than unequal, and where it does appear, it takes the form mostly of a common piece-rate list, the great example being weaving. "Unequal pay" predominates, and for manual workers in industry it sometimes takes the form of unequal piece-rates, but most of the women concerned are "black-coated" workers or shop assistants, and these get a lower time-rate than the men beside them.

12. The biggest gap between men's and women's rates in the overlap areas appeared before the war in engineering, where the minimum time-rate for a woman was little more than half that for a man, but by 1946 it had risen to over two-thirds. For the other overlap areas in manual work in industry, and for shop assistants, the women's rates lie around two-thirds those of the men. In most clerical employments, they lie between 70 and 80%, and 80% is a representative figure in government service and teaching, though there are many differences of detail. In general, the higher the pay, the smaller the gap.

III

13. One explanation of lower time-rates for women would be that their rates of output were lower. There is a good deal of evidence that this is so in work which calls for bodily exertion. A study of women on the land suggests that in most farm tasks their output is from 70 to 90% of men's.[1] Samples taken by the Commission of women working at the same piece-rates as men showed their earnings as from 65 to 84% of the men's in weaving woollens, and about 72% in making raincoats. The most extensive figures of this kind come from cotton weaving, where in 1937 the average earnings of women were 88% of the men's.[2] (In these comparisons some allowance may be due for the practice of keeping the better-paying jobs for men.) The Atkin Committee found in 1919 that "according to employers' statements, at the present time there is, if anything, an advantage in employing women rather than men in cotton-weaving where they get the same piece-rates; in the rather heavier woollen

[1] "Work Output Capacity of Women employed in Agriculture," by J. H. Smith, in *Welsh Studies in Agricultural Economics*, University College, Aberystwyth.

[2] E. M. Gray, *The Weaver's Wage*. (Manchester University Press.)

weaving, where their piece-rates are 10% less than the men's, it is a matter of indifference to the employers whether men or women are at the looms; while in engineering, they say that payment to the women of more than two-thirds of the men's wages would lead them at once to prefer boys or men." [1] To the extent that dexterity enters in, the women's output draws up to or surpasses the men's; as it does also in light repetitive work of a monotonous kind.

14. When we go on from the overlap areas in which each worker's output can be measured to those in which his net contribution is a matter of judgment, we are bound to meet prejudice as well as experience in the assessments. We also cannot in practice separate the assessment of net output (as in our test (*c*)) from allowances made for differences in overall value (which enter into our test (*d*)). But here the evidence leaves a clear impression that, whatever the net effect of other factors, those noted in para. 8 above as entering into overall value do operate on balance throughout the field of employment to reduce the value of women's work relatively to that of men's. Especially is a woman bound to suffer because, whatever the course of her own working life, she is of a type of labour that has a high rate of turnover.[2] Yet it is true that, even if this disadvantage is admitted, it may be insufficient to account for the actual differences in pay, part of which can still be put down to prejudice or convention.

15. There is good reason, too, to believe that women's labour is sometimes sold for less than it would fetch. Women are usually not so well organised for bargaining as men. Organisation apart, they are not for the most part likely to hold out for so big a wage: they do not most of them have to keep in mind what is needed to support a family; the terms they take are, for most of them, terms for an interim only, not for their life's work; many come from homes in which the essentials are already provided, and their earnings are helpful rather than vital.[3] Their supply price may therefore be too low, except in war, to give an upward jerk to the low valuation that male interests and tradition put upon their work. How much shall be paid,

[1] Para. 116, Cmd. 135 of 1919.

[2] For a criticism of this view, see P. Sargant Florence, "A Statistical Contribution to the Theory of Women's Wages" (ECONOMIC JOURNAL XLI, March 1931).

[3] "Many mining districts in which men can earn large wages show a low wage level for women, while in such a district as Hebden Bridge, where, as the phrase goes, it pays a man better to have daughters than sons, the opposite condition prevails." J. J. Mallon on "Women's Wages in the Wage Census of 1906," in B. L. Hutchins: *Women in Modern Industry*, pp. 231–2.

out of a given total, to one group of the workers is indeterminate when that group does not have a firm supply price, and the rate it is reasonable to set for women in one trade is likely to be calculable only by reference to general practice elsewhere; but if everyone does that, "fair relativity" is just circular. "Civil Service pay is determined primarily in relation to the wage levels in broadly comparable occupations in outside employment."[1] In 1942 the railway companies "stated that even where women were performing duties similar in character and value to those of men they were justified in paying them less, having regard to the fact that the ratio of the women's maximum scale rates to those of the men is approximately 80 per cent, which is the ratio observed in comparable civil service grades."[2] "My own ideas," wrote Professor Macgregor,[3] "are derived from service on a number of Trade Boards. I think that there still remain conventional attitudes towards rates of pay which are women's rates; and that they derive from social attitudes. I agree with the author (Miss Sells) of the best known study of the Boards that they did not test this matter out, but assumed a difference in the rates." There may be another circularity, in that what costs little may be thought worth little. "If women's rates are assumed lower than men's by a significant margin," Professor Macgregor added, "the women are put on the processes which are ill-paid as a market fact."

16. Here, then, are two main trains of evidence and argument, one showing that women's work tends to be at a discount to men's in the market because it is worth less to the employer, the other that it tends to sell at less than it is worth. Both can be right: it may be the case both that some discount is appropriate and that actual discounts are greater than that. But it may well be claimed that the very existence of overlap areas rules out the second possibility; the fact that firms do not fill these areas wholly with women shows that women do not actually offer a better bargain than men—in these areas, at least, rates must be proportional to productivities. The argument is strong, but not conclusive, for even within a true overlap area there may be resistances to the substitution of women for men beyond a certain line. That line may lie in the nature of the work:

[1] Second Memorandum of Evidence submitted by H. M. Treasury (Appendix II to *Minutes of Evidence*, para. 8).

[2] Memorandum of Evidence submitted by the T.U.C. (Appendix VI to *Minutes of Evidence*, para. 116).

[3] Memorandum submitted to the Royal Commission on Equal Pay (Appendix IX to *Minutes of Evidence*, 5, 6).

" the introduction of women into the factory or workshop heretofore employing men only was felt to result in a differentiation of the work in such a way as to throw upon the men all the specially onerous, specially unhealthy, or specially disagreeable tasks. Where there is night work the men have to do it all." [1] Or an arbitrary line may be drawn by the men to safeguard their own jobs : " no female shall be allowed to use nails longer than 1¾ inches " ; [2] an agreement of 1938 in the clothing trade specified trimming and fitting-up " as jobs on which women were and would continue to be employed," but " expressly provided that neither would men so employed be replaced by women nor would the employment of women on these operations be extended on any scale." [3] The employer, again, may feel the need for a " balanced team," or share the men's feeling that it would be wrong to extend the employment of women beyond whatever proportion custom has sanctioned. There are thus some reasons to qualify the contention that the existence of overlap areas rules out the possibility of the women's rate being less than proportional to their contribution. But unless the whole notion of an overlap area is illusory, a rate *much* below its due proportion surely must take effect, be it only spasmodically, to raise the ratio of women to men employed.

17. It will also be pointed out, however, and with the authority of the Commission, that in the public service the difference in pay persists although men and women here are doing the same job and " at least during the period when each is actively at work " doing it equally well.[4] This case has some special features : entry is by examination, or by special training, so that the proportion of women taken on is not (save to some extent in teaching) decided by the employer; the system has no exact counterpart to the private employer's incentive to take the best bargain in the labour market; the proportion of women can vary widely, but there is an underlying requirement of " a balanced team," which calls for a certain minimum of each sex. In these conditions the pay of each sex is indeterminate above the limit set by the price just high enough to call forth the required minimum of that sex. Actually, for the taxpayer's sake, the pay is kept down to what is judged to be the supply

[1] Mrs. Webb, *Minority Report of Atkin Committee* (Cmd. 135 of 1919, p. 266).

[2] Agreement between the packing-case makers and the National Union of Packing Case Makers and the Amalgamated Society of Woodcutting Machinists, 1942. (Memorandum of Evidence submitted by the T.U.C. Appendix VII to *Minutes of Evidence*, para. 91.)

[3] *Report*, para. 177. [4] *ibid.*, para. 75.

price: as a Departmental Committee of 1918 [1] put it for teaching, "the scale of salary offered must be good enough to attract a sufficient number of recruits sufficient for the work to be done, to retain them while other careers are still open, and to secure service of the desired quality from those who adopt teaching as their life work." Now, in fact, it is found that the women's supply price is lower than that of the men: "the existing rates for women civil servants are certainly adequate . . . to attract women of the appropriate quality and in the numbers required, and to retain their services." [2] Similarly, it has been found that the supply price of other professors is lower than that of professors of medicine; and a growing demand for scientists in industry may make it necessary to pay science teachers more than their colleagues: the supply-price principle in the public service does not lead solely to differences between men and women. Nor is there any implication that the supply prices of different members of a composite service are indexes of their contributions within the service, or the respect due to their qualities generally. Women, said Edgeworth, "might, indeed, be more diligent and in most branches of education better teachers than men. A steel knife is a more useful implement for general purposes than a silver blade. But if silver is required to preserve the flavour of dessert, the epicure must pay for the metal which has the greater value in exchange." [3] The claim for "equal pay" in the public service may be based on various principles, but hardly on the principle that each member shall be paid no less than any colleague whose supply price is higher.

18. There remains one more argument concerning the connection between differences in efficiency and differences in pay. In a given grade of labour, it is pointed out, there are differences of efficiency not only between men and women but also between men and men, and even though the average efficiency of the women is lower, there are likely to be a good many women who are more efficient than some men: so "it may well be that differentiation of rates according to sex introduces scarcely less 'false standardisation' into the wage system than would be introduced by a single scale of rates for all workers." [4]

[1] Quoted in *Report*, para. 86.

[2] Second Memorandum of Evidence submitted by H.M. Treasury (Appendix II to *Minutes of Evidence*, para. 15).

[3] F. Y. Edgeworth, "Equal Pay to Men and Women for Equal Work" (ECONOMIC JOURNAL, XXXII, December 1922).

[4] Memorandum of Dissent, by Dame Anne Loughlin, Dr. Janet Vaughan and Miss L. F. Nettlefold, para. 10. (*Report*, p. 190.)

This argument is right in pointing out that if the workers of a given grade are to be divided into two groups, each group being paid its own standard rate throughout, then the grouping which will give the best aggregate fit of pay to efficiency will probably show both men and women in each group, and grouping by sex will give a worse fit. But this does not prove that, where grouping by sex is the practice, paying the women's group the men's rate or both groups an intermediate rate would not worsen the fit.

19. On the main issues here the conclusions reached by the majority of the Commission seem to me to be right. "We think there is a strong underlying tendency," [1] they say, "towards the overlap areas being established at points at which the relative efficiency of men and women, account being taken of all the factors which we have enumerated, is roughly proportionate to their relative weekly wage-rates as determined by the general forces of demand and supply." "This tendency is, however, in our view qualified and thwarted by certain forces" (namely, conventional factors) ". . . so that in certain overlap areas the gap in time-rates, whether those rates are actually paid or are used as a basis for the calculation of piece-rates, is probably greater than the gap in efficiency." That in industry, at least, some difference in overall value does underlie the difference in pay is after all borne out by the general agreement that if equal time-rates were enforced men would supplant women. "There was complete unanimity on the part of the employers in every department of industry proper," said the Atkin Committee,[2] "that it would drive women out, and the opinion of the general Unions was that it would have this effect on trades unsuited to women. The skilled men's Unions were now, as, according to the evidence before the Fair Wages Committee, they had been in 1908, of opinion that the policy would involve exclusion and it was frankly admitted by some of them that this was what was desired." That the difference between men's and women's rates is greater the less skilled the occupation also agrees with the belief that "the general forces of demand and supply" do take effect. There is so much evidence, however, for the presence of factors that would make women's work sell for less than it is worth, that it seems no less likely that women's rates are frequently depressed by a margin which is greater than the difference in efficiency justifies, and which the forces of demand and supply may limit but do not wipe out. The remedy for these too-low rates lies in collective bargaining and in the policy

[1] *Report*, para. 357. [2] Cmd. 135 of 1919, para. 213.

of Wages Councils, rather than in a slogan which would fix rates too high.

20. The discussion here has been concerned only with the difference of men's and women's rates within those overlap areas in which "equal pay" would take its first effect, and has not raised the wider questions either of the social function (as distinct from the origin) of higher rates for men, or of the social attitudes which affect the market for women's labour of all kinds, and so help to determine the position of the overlap areas. Among these attitudes one of the most important is the resistance of men to the extension of women's employment; there is much evidence for this.[1] Chapter VIII of the Report, which examines the overlap areas in their setting of the market for women's labour generally, deserves to become known as a classic contribution to the study of wages.

E. H. PHELPS BROWN

The London School of Economics.

[1] The Atkin Committee (Cmd. 135 of 1919) cite a written agreement in the boot trade for "gradual cessation of the employment of female amongst male operatives in the clicking, press, lasting and finishing departments." In printing, "exclusion from the trade was ensured by the London Society of Compositors by allowing their admission upon the same conditions as journeymen to be paid strictly the same rate" (para. 36). See also the passage quoted in para. 19 above. A number of instances are cited in "A Study of the Factors which have Operated in the Past and those which are Operating now to determine the distribution of Women in Industry" (Cmd. 3508 of 1930): *e.g.* "It is estimated that in 1910 there were about 1,100 women compositors in Edinburgh alone, but now as a result of the Unions' opposition there are said to be only about 200 in the whole of Scotland" (p. 26). In their memorandum to the Commission of 1945 the T.U.C. said: "The trade unions have been compelled not only to uphold, but to promote, a clear demarcation between men's and women's work—where such demarcation was possible—in order to protect the men's and thus indirectly the women's rates of pay. Admittedly there is something like a vicious circle involved in this situation, since the limited opportunities for industrial employment that were available to women has tended to crowd them into certain occupations and to keep down the rates of wages paid in these occupations." (Appendix VII to *Minutes of Evidence*, para. 17.) Mr. Pheazey, of Standard Telephone and Cables Ltd. and the Engineering and Allied Employers' National Federation, giving evidence before the Commission, said: "I can assure you that it would be very easy for you to take the pre-war years when we had recognized women's jobs and recognized men's jobs, and for you to confirm that such men's and women's jobs, were regarded as such on the factory floor itself by the people who were actually involved. The people on the factory floor assess these things in their own way, and any effort that might have been made to dispose of a man and to put a woman on his job in order to save money . . . would be instantly taken up by the workpeople themselves through their trade unions. It was just not possible for such a thing to happen, and it did not happen." (*Minutes of Evidence*, 12, Q. 2860.) Some agreements restricting the employment of women are named in a note to para. 360 of the *Report*.

REVIEWS

Voluntary Action: A Report on Methods of Social Advance. By LORD BEVERIDGE. (London: Allen & Unwin, 1948. Pp. 420. 16*s*.)

Voluntary Action is essentially a sequel to the Beveridge Report, designed as an attempt to work out the appropriate place for voluntary bodies of various types in a society which has developed an extensive network of public social-security services. Lord Beveridge's thesis is that the extension of State activities in the social-service field still leaves a very wide field open to voluntary action, partly independent, partly pioneering, and partly collaborative with the services carried on under public auspices. If these tasks are to be well performed, there is clearly need for a fundamental reconsideration of the structure and attitude of the organisations through which they are to be implemented.

As Lord Beveridge points out, the entire environment of voluntary action has been changed, not only by the growth of the social security services but even more by a fundamental alteration of the whole social environment. The social-service State is itself a product of a new social attitude which rests on much more democratic foundations than were possible for most of the voluntary services which grew up during the eighteenth and nineteenth centuries. Essentially, the shift is from philanthropy directed from above in aid of the classes thought of as socially inferior to forms of democratic mutual aid and organisation of the community spirit. This change is typified in the growth of the National Council of Social Service as the main co-ordinating body, as well as in the transformation of the Charity Organisation Society into the Family Welfare Association. Of course, mutual-aid services are nothing new. They existed on a large scale throughout the nineteenth century, side by side with the philanthropic bodies through which the well-to-do set out to relieve the needs of the poor.

Lord Beveridge devotes much attention to a study of one type of mutual-aid organisation—the Friendly Society—and therein performs a very useful service, for almost nothing has been written about the Friendly Societies since Mr. Frome Wilkinson's two books which appeared more than half a century ago. Since then there has been a great change in Friendly Society activities, in-

cluding not only a clearer distinction between the centralised collecting Society and the "Order with Branches," but also a widespread decline in the sociable and non-contractual aspects of Friendly Society work. The Friendly Societies, including the Orders, despite their large membership, have ceased to count as a social force to anything like the extent to which they used to count in the Victorian era, and this has happened, not only because the State has so greatly extended its activities, but also because the strata of population to which the Friendly Society appeals as an agency of mutual help have come to be much more fully equipped with opportunities for social and political activity than they used to be in the heyday of the Oddfellows and the other great Friendly Orders.

Lord Beveridge's up-to-date analysis and classification of Friendly Society work is of high value. It is a pity that he has devoted very much less attention to other forms of mutual aid. He gives good reasons for dealing very briefly with the Consumers' Co-operative Societies, and hardly at all with the Trade Unions, both of which have been adequately surveyed by others; but he might well have given some space to some of the auxiliary bodies, such as the Women's Co-operative Guilds, which have performed a highly important part in bringing working-class women forward into active citizenship. He might also have said more than he has found room to say about the more recent development of various types of community association besides the Citizens' Advice Bureaux, with which he does adequately deal. As against this, he gives considerable space to charitable trusts and specialised philanthropic agencies; and he has much that is amusing (based mainly on Hobhouse's *The Dead Hand*) to say about the operations of the law affecting trusts that have become manifestly obsolete, or were from the beginning foolish or even anti-social.

With all its merits, the book cannot be described as a good one. It contains much useful information and wise comment—and a great deal of supplementary information is promised in a second volume of documents and appendices that is still to come. But, with all its wealth of information and suggestions, it is badly put together and out of balance. It seems almost as if Lord Beveridge, having set a team of helpers to work and done a good deal of thinking himself, had got tired of his task before he had achieved a satisfactory arrangement of his material. This applies especially to his interesting, but scrappy, chapter dealing with a number of pioneers in the field of voluntary social service. The work of these pioneers has been so much overlooked by social historians

that even what is given us here is very welcome, but his selection of names for inclusion is highly arbitrary (why, for example, is Margaret Llewelyn Davies left out?), and the data given are tantalisingly incomplete.

G. D. H. COLE

All Souls' College,
Oxford.

Statistics for Economists. By R. G. D. ALLEN. (London: Hutchinson's University Library, 1949. Pp. vii + 216. 7*s*. 6*d*.)

PROFESSOR ALLEN has largely succeeded in his objective of "providing an introduction to statistical methods in their application to economic material," and many readers of the ECONOMIC JOURNAL will be very grateful to him in consequence—whether it be themselves or their pupils that they want to instruct.

That sentence really sums up the merits of the book, and renders further elaboration almost unnecessary. Professor Allen takes the reader through the elementary statistical "drill"—graphs, averages, index-numbers, correlation, seasonal variations, sampling, etc.—in a way which should not unduly tax the powers of any serious reader, even if he has no previous knowledge of the subject, or of any mathematics which cannot fairly be called "elementary." There are plenty of worked examples to illustrate the methods, and all the necessary steps are shown.

Having paid tribute to its great merits, I may perhaps be forgiven for devoting the rest of this review to suggestions for improvements, for possible incorporation in the later editions which are certain to be required.

Much the least satisfactory chapter is the first, which is described as dealing with the collection, definition and tabulation of data. There is a lot of useful material in it, but its general plan seems essentially misconceived, and not very well executed at that; and in the result some important points which ought to be made are virtually neglected.

The chapter is on the face of it mainly designed to give the reader a few instructions on how to carry out a census or other statistical investigation himself. As the first sentence in Chapter II recognises, however, this is not what the ordinary reader wants to do, and it seems more reasonable to suppose that these very incomplete notes on the subject are intended to give him some idea of what lies behind the statistics he uses.

This is a praiseworthy objective, though hardly perhaps important enough to justify its place at the start of the book, but it calls for a quite different treatment. Above all, the reader should be told that many of our figures are the by-product of administrative processes (assessment of taxes, provision of social services, etc.) which are primarily concerned with seeing that each individual in the specified classes gets or pays the prescribed amounts, and not with yielding statistics which conform to logical definitions from the economist's viewpoint, or which cover the whole of his field; a description of the collection of data which tacitly implies that the main object of the process is always to provide meaningful aggregates can only be misleading.

A more serious deficiency arising out of Chapter I is the inadequate instruction given to the reader as to how he should draw up tables. Professor Allen makes a lot of good points which are applicable to all kinds of tables—about clear headings and the like—but his treatment is still focused on the question of publishing the results of an original enquiry. The reader's problems are likely to be quite different: he is probably concerned with drawing up a "text table" to throw light on one particular aspect of a problem, and need not worry if it omits information which is interesting or useful for some other purpose—indeed it is his job to avoid obscuring the issue by including such details, whereas the publisher of original results frequently has to produce a "reference table" which will give the maximum information with the minimum of printing.

It is perfectly true, as Professor Allen points out, that skill in the framing of tables is only acquired by experience. Nevertheless, there are some general rules which are of great importance: "Decide what the object of your table *really* is, and lay it out accordingly"; "put things which are to be compared in adjacent rows or columns"; "in general, arrange the table to make it easy for the reader to draw the conclusions, not so as to make it easy for you to write the headings or fill in the figures." These and other maxims all appear obvious, but they are only too often disregarded, and should have been firmly stated, with several examples of the "wrong way—right way" kind.

This brings me to a rather more far-reaching suggestion. The book as it stands may be regarded as a series of accounts of how to do the exercises which make up the basic statistical "drill." There is little attempt to show the novice how he applies his drill in real life, or how he can "interpret" statistics. This really is an art which can be learnt only by experience,

but it would have been helpful to have a brief chapter on the subject, illustrated by plenty of examples of right and wrong interpretations; the illustrations could mostly be provided by enlarging the brief paragraph on " conclusions " which accompanies many of the appendix tables. Apart from this, however, there are a number of places where Professor Allen seems to have shrunk unnecessarily from *applying* the rules of his drill-book : thus on page 61 we are told that a graph on a ratio scale is appropriate if we wish to show proportional changes in the variable and not absolute ones, but are not given a single example of the cases where proportional changes *are* the relevant ones, nor any general guidance in deciding a point which is usually far from obvious.

Finally, two of the inevitable minor criticisms. On page 91 a movement from 86 to 142 in an index is said to be a rise of 56%. The argument on pp. 106–8 would be more convincing if the illustrative figures gave *exactly the same* answer when we are considering two ways of calculating the same thing, and *different* answers when the concepts are different; doubtless the reader ought to accept the explanation that rounding-off and chance are responsible for the results coming out the other way round, but it seems unnecessary to tax his faith.

May I end as I began ? This is a book which will be extremely valuable to both teachers and students of statistics. That conclusion is so clear that it seemed right to devote the bulk of this review to suggesting ways in which Professor Allen could put us yet further in his debt. The ratio of criticism to praise must on no account be assessed by the number of words falling in each category.

W. B. REDDAWAY

Clare College,
Cambridge.

The Industrial Revolution 1760–1830. By T. S. ASHTON. (London : Oxford University Press, 1948. Pp. vi + 167. 5*s*.)

IN this slim volume Professor Ashton presents an exceptional addition to the Home University series. It can be placed at once on the short list of books given to the intending student in this field. Its qualifications for that honour are clear enough. The style is so fluent that, once having started, it is hard not to finish it in an evening. Yet it is in no sense superficial. Long

and careful scholarship are obvious in every chapter and re-reading only intensifies the respect we must feel for an author who can undertake a formidable task of compression with such clarity, arguing a consistent thesis the whole time, and presenting the major controversies nakedly for the general reader.

The main theme is simple enough. In his six short chapters Professor Ashton set out to describe the way in which the rapid growth of population, "the outstanding feature of the social history of the period," was accompanied by those changes in industrial technique and organisation which enabled the enlarged generations to be fed, clothed and employed at a far higher standard of living than ever before. It is emphasised, both in introduction and in conclusion, just how lucky we in England are that this coincidence occurred. Nineteenth-century Ireland or India and China to-day are reminders of the conditions of those not so fortunate.

With this general thesis everyone would agree, but the author goes much further. He is out to defend the industrialisation process in England on every count. Not only did real wages rise in the long run but the impact effect, too, was beneficial. Over the period 1760–1830, he argues, the average standard of living was raised substantially. In fact, in the famous Hammond–Clapham controversy, Professor Ashton stands wholly and unreservedly on the side of the angels.

In this fight he handles his weapons with skill and conviction, on one occasion, however, changing his rapier for a club. Mr. Colin Clark, who once committed himself to the view that by the early years of the nineteenth century the life of the British worker had been forced down to Asiatic levels, "can hardly have looked at the statistics which more than a generation of research has produced." To be sure the Hammondites will return to the attack, but seldom has the opposing viewpoint been better argued.

If it is old fashioned to defend the industrialisation process to this extent, Professor Ashton is even more "classical," economically speaking, in his explanation of why it occurred. "If we seek—it would be wrong to do so—for a single reason why the pace of economic development quickened about the middle of the eighteenth century, it is to the lowering of the rate of interest that we must look." Now this position is a very difficult one to hold. Interest can hardly be said to have been the dynamic of investment in industry. The amount of capital needed to start the early textile factories was very small compared

to the amounts which had for centuries regularly been invested in land, and, as this book itself emphasises (pp. 95–7 and 147), plants, once started, grew largely by ploughing back profits at a great rate, almost regardless of outside influences, and certainly not in accordance with the rate of interest. On building investment, Professor Ashton is, in theory, on somewhat firmer ground; but hardly firm enough to support the edifice he erects. Perhaps some explanation for his outlook lies in his belief that (p. 160), " at least two-thirds of the rent of a dwelling consists of interest charges." (At 5% and with a twenty-year amortisation period it would be about half this.) At every stage in his analysis, whether discussing long-period movements or fluctuations over a trade cycle, the rate of interest is given the leading role. Not even Mr. Hawtrey could be more faithful. It is probably in this respect that his thesis will raise the biggest doubts in the minds of Professor Ashton's colleagues.

In one respect at least, economists cannot complain that this book is not courageous. Inventions are dropped into boxes marked " labour saving " or " capital saving " with a facility which many will envy. Occasionally, however, the economics seems a little simple. What would Lord Keynes have thought of the view that (pp. 107–8), " in 1776 about two-thirds of the British National Debt was in the hands of the Dutch. This meant that an equivalent amount of native resources was freed for investment elsewhere " ?

But whatever reservations one may wish to make about this book, it is clear that it is an important work. Professor Ashton at his best in fact. Introductory though it is, there is nothing milk and water about it. His differences are not whittled away in saving clauses or hidden discretely in footnotes. Every teacher will be grateful to him for this addition to the standard works in the field.

KENNETH BERRILL

Cambridge.

Economic History of Europe. By HERBERT HEATON. Revised Edition. (New York: Harper & Brothers, 1948. Pp. xiv + 792. 21*s*.)

THE first edition of Professor Heaton's work appeared in 1936. It was intended primarily as a book for students who had little previous knowledge of the subject, but its value was greater than that, for it presented, in lively, readable, but scholarly

form, a synthesis of the researches, old and new, into European economic problems from ancient times to the twentieth century. Since 1936, as Professor Heaton remarks, historians have been "amplifying our knowledge and revising our interpretations at an appallingly rapid rate." This new edition ("in large measure a new book, completely rewritten") incorporates the results of much of this recent work and carries the story down to a point nearer the present. In a world of monographs and specialised study, a project of this kind is sure of a cordial welcome, especially when it is executed with the thoroughness and scholarship which mark Professor Heaton's account.

The new volume is rather longer than its predecessor. It gives slightly less space to the Middle Ages, rather more to the modern period. Most chapters have a separate bibliography, and a glance through them reveals the amount of new material which has been incorporated. The medieval sections have been adjusted and improved with the aid of the recent researches of scholars such as Homans, Postan, R. A. L. Smith and the late Miss Eileen Power. The work of Harper, Pares, Hamilton, Hilgerdt, Guillebaud, Hansen, Messrs. Jones and Pool—to mention only a few—has changed the character of the modern chapters. Yet Professor Heaton is nowhere content with a mere *résumé* of other people's opinions. These scattered contributions have been carefully welded into a new synthesis and there is plenty of shrewd comment and critical observation.

That an account of this length and scope raises important points of controversy goes without saying. There is not room in a short notice to remark on more than the biggest issues. In one controversy of major importance—the nature of mercantilism—Professor Heaton himself has taken a lively part. Little has been added to the volume of printed material since the controversy was at its height about 1937. Yet the controversy continues. The nature and effects of State intervention in economic affairs must be a matter of fundamental importance to the economic historian. Since 1945, practical experience, rather than academic research, has thrown new light on a number of related problems, on the balance of payments, on hard currency areas, on the problems of enforced bilateral trading, on the relations between strategic and commercial policy. Professor Heaton's verdicts are judicious and well-balanced. But the modern European student may well be left wondering whether we have yet got to the *fons et origo* of the matter, whether we are not in many ways nearer the seventeenth century than the nineteenth,

whether this is not another of the larger problems of economic history which need to be revalued in the light of contemporary experience. The method has its dangers, but where Lord Keynes led, others might follow.

CHARLES WILSON

Jesus College,
Cambridge.

The Early English Trade Unions. Documents from the Home Office Papers in the Public Record Office. Edited by A. ASPINALL. (London: Batchworth Press, 1949. Pp. xxxi + 410. 30*s*.)

FEW men are more familiar with the public records of the early nineteenth century than Professor Aspinall; and economic historians and students of trade unionism will be grateful that, though not one of them, he has remembered them so handsomely in his researches. The 400 odd documents from the Home Office Papers, 1790–1825, which he has now made widely available, are not, indeed, in general unfamiliar; but they are none the less welcome for that. Here we find the accounts of the shearmen's disputes in 1803–4, the Lancashire cotton struggles of 1808 and 1818, the Glasgow weavers' of 1812–13; of the East Midland framework knitters; of the endemic trade unionism among Tyneside sea- and river-men; and intermittent information about a variety of occupations and unions—for example, shoemakers and calico-printers. Here we find the familiar story of anti-Jacobin hysteria in high places and—until Peel's advent to the Home Office—of the conversion of the law into a crude "instrument of oppression, and of mean, selfish narrow-minded mercantile cupidity"; but also valuable fragments of the unfamiliar story of early trade union techniques of striking and bargaining. The history of Luddism (which Professor Aspinall unfortunately omits, as he does most of the political aspects of trade unions) may well deserve reconsideration in the light of these. Altogether, it is a rich haul.

If criticisms suggest themselves, it is precisely because a collection which will clearly (and justifiably) enjoy a wide circulation, might have been made even more useful. Two improvements spring to mind. The first concerns the manner of editing these documents. Reasons of space have no doubt prevented the publication of all relevant items from the Home Office Papers. Thus the account of the 1808 weavers' strikes in H.O. 42/95 (Aspinall: Nos. 87–101) contains important

details not available here—for example, the weavers' demands for piece-rates and a regular price list. The footnotes of the Hammonds, those great pioneers of the Home Office Papers, refer us to other documents not to be found here. A summary list of such items, with or without indication of contents, would have vastly increased the value of this book as a guide to future students of the material. Again, it is very regrettable that Professor Aspinall has nowhere discussed his principles of selection and cutting; for many of the documents are given in extract only. Occasionally also one's confidence is slightly shaken. Thus the footnote on p. 95 does not explain that the wages reported there are not for weavers in general, but for weavers of cotton cambric only; and that they are based on very scanty data.

Equally regrettable is the absence of any real discussion of the limitations of the material. While the policy of the central government does, indeed, emerge from these papers, it is only with many qualifications that one can accept Professor Aspinall's claim that "nowhere else can . . . the administration of the laws against combinations, and the activities of these illegal societies be studied in detail." Central government was primarily concerned with public order and the threat of revolution, and with the general prosperity of British trade. Except in cases of grave unrest, it rarely took the initiative in seeking information from its local agents. These in turn would appeal to London only intermittently, when the local situation threatened to get out of control. Thus it is evident (p. 14) that the riots of the Tyne seamen were, for long periods, an annual part of the collectiver bargain; yet the Home Office was only involved in them at irregular intervals. Again, we know that certain skilled or strong groups of workers enjoyed virtually complete local recognition. What we want to know about shipwrights or shoemakers is not the fact that they appear occasionally in the Home Office Papers, but why the local gentlemen's agreements broke down when they did; and this our documents do not always tell us. Moreover, just as most of the administration of the combination laws (whose efficacy Professor Aspinall probably underrates) took place below the Home Office level, so did most of the normal functioning of trade unions. It is unreasonable to expect documents provided mainly by magistrates, masters and spies, and concerned with strike-breaking and analogous tasks, to give more than incidental information about other matters.

The Home Office picture of British trade unions is therefore in the nature of things distorted and incomplete; and the proper use of these documents is not as simple as it looks. One could have wished Professor Aspinall's introduction to give readers some guidance about the slipperiness of the terrain; or perhaps some reference to the not negligible literature on the subject. None the less, whatever one's regrets, they are overborne by gratitude to editor and publisher, who have added a necessary book to the shelves of every serious student of the period and the subject.

E. J. HOBSBAWM

Birkbeck College,
London.

The Early Factory Legislation. By MAURICE W. THOMAS. (Leigh-on-Sea: The Thames Bank Publishing Company, 1948. Pp. xiii + 470. 35*s.*)

THE hesitant steps taken by the State in the early years of the nineteenth century to protect child labour from exploitation are in marked contrast with the bold and swiftly moving interventions throughout the whole field of labour to-day. How hesitant those steps were is admirably illustrated in this volume, which covers the half-century from the passing of the Health and Morals of Apprentices Act, 1802, to the Employment of Children in Factories Act, 1853. Extensive use is made of factory inspectors' reports and of Home Office minute books which record discussions at inspectors' conferences, and extracts from original documents are given in an appendix which is followed by a detailed bibliography. A foreword is written by Mr. G. P. Barnett, H.M. Chief Inspector of Factories.

The main stages of development are reviewed, including the Act of 1802 which introduced the principle of State intervention in the field of labour, the 1833 Act to Regulate the Labour of Children and Young Persons, which, under the influence of the Benthamites, applied a system of control, and the Labour in Factories Act of 1844 which used the experience and failures of previous decades to provide the pattern for a durable administrative system, restricted further the hours of labour of children and young persons, removed some of the difficulties of enforcement, and applied the "half-time" system of school attendance. Finally, in this early period, the Acts of 1850 and 1853, which, like the earlier legislation except the 1802 Act, were limited to textile factories, marked the

end of an epoch and firmly established the principle that the State has the right and indeed the duty to impose controls in order "to protect those who are unable, in the highly individualistic and competitive industrial system, to protect themselves. When once this basic principle had won general acceptance progress became possible on a wide front, and reform could proceed with increasing momentum" (page 327). Also a system of inspection and administration, slowly and painfully devised, provided a basis for future development.

Details are given of the bitter controversies which raged between interventionists and non-interventionists in this period when "a new conception of the functions of the State was struggling for recognition" (page 42). The earliest Acts to regulate the hours of child labour and to fix a minimum age of employment were largely ineffective because of hostility by employers, many of whom used every loophole for evasion, and of apathy or opposition by parents and workers, who often gave false information about the ages of the children and in other ways tried to defeat the law (page 125). The unpopularity of the legislation made the task of inspection and enforcement difficult, and frequently the magistrates were unduly lenient and encouraged violations of the law. The trade-union movement was then too weak to give much aid to enforcement.

Many mistakes were made in these tentative experiments in social legislation. The Acts included provisions which were so vague that they led to controversies about interpretation, and which were often based on inadequate knowledge of factory conditions. The first inspectors, whose numbers were quite inadequate for their task, were empowered to make regulations without submission to Parliament and to exercise judicial powers, which were beyond their true function (page 96); these mistakes, however, were made largely because there was no experience or tradition to serve as a guide, and such powers were greatly curtailed by the Act of 1844. The author pays high tribute to the ability and keenness of the first inspectors, who contributed much to the evolution of a sound system of inspection, and to the development of factory legislation. He also shows the gradual recognition of the need for a central inspection department to ensure co-ordination which was lacking when each inspector was independent in his own area.

An interesting account is given of the problems raised by the attempts to link regulation of hours of labour of children with their education. The great majority of factory and private

dames' schools provided only a discreditable mockery of education, and it became increasingly recognised that a State-aided system of education would be required (page 217).

The author indicates that by the middle of the century there was evidence that the earlier legislation had not brought ruin to the factories as had been predicted. Some manufacturers had reduced hours on their own initiative with beneficial results to production and to the health of the workers, thus disproving the naïve statement made earlier by Nassau Senior that the entire profit of a factory was gained in the last hours of work, and that if the mills were restricted to ten hours a day they would be run at a loss. The strong support of the workers for a shorter working week is also indicated, and the hours of work of men in the textile factories came in practice to be similar to the sixty-hour week laid down for women, young persons and children in the Act of 1853, with work ceasing on Saturday at 2 p.m., thus providing what Continental European workers later called the English week-end when making their own demands for more leisure.

The volume is a useful documentary supplement to the social and industrial histories of the first half of the nineteenth century.

J. HENRY RICHARDSON

The University,
Leeds.

Les Relations entre Patrons et Ouvriers dans l'Angleterre d'Aujourd'hui. By PIERRE WALINE, with a Preface by ANDRÉ SIEGFRIED. (Paris : Librarie Marcel Rivière, 1948. Pp. 304.)

To see ourselves as others see us is a salutory experience, especially when the observer is so well informed and friendly as Monsieur Waline. In this well-documented comprehensive study the author begins by surveying the political controversies which raged over the Trade Disputes and Trade Unions Act of 1927, and this is followed by accounts of the present development of the trade unions and employers' organisations, the political activities of the trade-union movement, the system of collective bargaining, and consultation between management and workpeople within the factories.

M. Waline and M. Siegfried agree that industrial relations in Great Britain are the best in the world; there is a strong sense of solidarity between employers and workpeople in the processes of production, and rifts between them have been firmly bridged at

many points. This practical adjustment has resulted in preference by the State as well as by employers and workpeople for the flexibility of voluntary agreements rather than the greater uniformity of State regulation. The policy of British trade unions in favouring a working arrangement with capitalism by compromise and consultation is contrasted with the sharper cleavages and doctrinaire programmes in some European countries.

Pertinent questions are raised on the consequences of the political association between the trade unions and the Labour Party. Can a Member of Parliament serve two masters—his electors and his trade union? Can the trade unions in nationalised industries dictate the policy of the State as employer? Can the Government remain strong enough to take final decisions in the interests of the whole nation? Is the Labour Party or the T.U.C., the Government or the unions master in Britain? When Labour Ministers speak at Labour Party Conferences they are in effect rendering account to their great electors, the powerful trade-union chiefs, in whom many of them see their comrades and colleagues of yesterday and perhaps of tomorrow (page 279). Yet, notwithstanding heavy demands and unpalatable policies, such as those for increased production and restraint on claims for higher wages, the Government has so far succeeded in retaining the support of the trade unions for a programme based on national needs, though the response of the trade unions has fallen short of the Government's hopes. In the battle for economic recovery, however, it seems rather strange that the generals urge the soldiers to fight harder, but do not give them clear battle orders. Many of the Ministers content themselves with putting before the unions a sombre picture of the economic state of the country without giving them a definite plan (page 285).

M. Waline considers that, up to the present time, the T.U.C. cannot be accused of having abused its power, but he believes that questions may arise on which the Government would find it difficult to oppose the demands of the trade unions, and he holds the opinion that the political role of the unions may lead to serious constitutional issues (page 294). From the point of view of political theory he thinks it would be desirable for the link between the Labour Party and the unions to be broken, though he does not see how this could be done. He is satisfied that in social policy the Government has succeeded better than others would have been able to do, and he points to the small losses from strikes during the years of post-war reconstruction, this, however, being partly because the trade-union leaders cannot allow the Govern-

ment, which is so much their own creature, to be handicapped by industrial unrest.

A useful analysis is given of the membership of the Labour Party, showing the overwhelming strength of the trade unionists, though less than one-third of the Labour members of the present House of Commons were sponsored by the unions. The Labour Party, it is noted, differs from Continental socialist parties, the latter being composed of individual members, whereas the former consists mainly of trade-union organisations. Also, on the Continent the influence of socialist parties on the trade-union movement is usually greater than that of the trade unions on the parties, but in Great Britain the opposite is true.

The "closed-shop" controversy and the tendency towards compulsory trade unionism are critically discussed. The unity of British trade unionism combined with liberty has been an outstanding achievement, and the union leaders are sincere when they oppose totalitarianism. Nevertheless, M. Waline finds it disturbing when in the House of Commons and in other public statements the spokesmen of the workers seem to favour a permanent monopoly of the present trade unions in representing the workers' interests. The closed shop in its strictest sense gives to a union a monopoly of employment in its own field. The policy of excluding minority unions from recognition for purposes of collective bargaining condemns such unions to a slow death, and the T.U.C. refuses to recognise break-away unions. Such policies may be necessary for preserving industrial peace, but they nevertheless involve the abandonment of certain democratic principles, such as the rights of minorities, and represent a step along the totalitarian roadway. The author's hope is that British methods of industrial relations, which claim his admiration, will not be undermined by loss of liberty through the injection of totalitarian poisons.

Collective agreements have become a national institution in Britain, by contrast with their more erratic course in France, and they provide an intricate fabric patiently woven jointly by employers' organisations and trade unions. Many subjects which in France would be dealt with by law are regulated in Britain by agreements, each industry framing an industrial code most suited to its own conditions, and easily revised when necessary. An account is given of the part played in national economic affairs by the great central bodies of employers and workers, which are systematically consulted by the Government, and in this connection the need of the T.U.C. for increased research facilities is emphasised.

Reasons are given for the lack of enthusiasm by many employers and trade unions for regular systems of joint consultation at factory level. The impact of Communism on the unions is also discussed.

This is a stimulating book, and is the more interesting because of the comparisons and contrasts made with industrial relations in France.

J. HENRY RICHARDSON

*The University,
Leeds.*

Partnership for All. By JOHN SPEDAN LEWIS. (London: Kerr-Cros Publishing Co. (for the John Lewis Partnership), 1948. Pp. xviii + 532. 12*s.* 6*d.*)

THIS book tells the story of a notable and successful industrial experiment. When Mr. Spedan Lewis went into his father's Oxford Street business after leaving Westminster (instead of going to a University), he was shocked by the disparity between the large profit drawn out of it by the owner and the small amount paid in salaries and wages to the employees. In due course he became a partner in the Oxford Street business and the sole owner of Peter Jones, Ltd., of Chelsea. This concern had been bought by his father when it was losing money, as it continued to do for several years. But the young Lewis had a free hand; he used his new power to remodel the shop and to revolutionise the relations between himself and his workpeople.

In effect, one may say, he took the prior charges for himself, and left the profits, which usually go to the owners or ordinary shareholders, to be divided among the workers. Apparently it was only the large income which he was drawing from Oxford Street which allowed him to finance his Chelsea experiment in the early years. Finally, when his father died at ninety-two (he never retired), the young Lewis had complete control of the two concerns and of other shops which he bought in the suburbs and elsewhere.

By this time, there are twelve thousand Partners; to distribute partnership benefit at the rate of 1% requires £27,000. Up to the disaster of the oil bomb, which burnt the old Oxford Street premises to the ground in 1940, benefit was equal to six weeks' additional earnings. Then for seven years nothing could be distributed, but all the arrears of interest on the partnership capital have been paid up. Accounts for the year 1947–48 were not completed when Mr. Lewis was writing; certain exceptional

expenses such as the Purchase Tax of the November Budget have reduced the profits of the year. Nevertheless, Mr. Lewis expects a distribution of 5% on the pay sheet, that is, on £135,000.

In addition to payments in stock and cash (payment is made in 7½% cumulative ordinary shares saleable on the Stock Exchange), the Partnership spends £50,000 a year on " free insurance against exceptional need (chiefly sick pay)," and a similar sum on " education, country clubs, music, dancing and other collective amenities." With other payments such as pensions, Mr. Lewis reckons that the total receipts of the Partners from the last year's earnings will be £448,000. Perhaps one should mention that he has been lending part of his own capital to the partnership free of interest.

How far have the general principles of the partnership affected the minds and habits of the workers in the businesses concerned? A Cambridge graduate (with first-class honours), who spent eight years in the partnership after four years in another big drapery business, wrote to Mr. Lewis, describing how he came to feel " an intense and I hope active affection, not for any particular persons but just for the whole thing, the entity we call the Partnership." A middle-aged salesman, with much outside experience, told a special committee that the partnership affected the happiness of the worker " by the feeling it gives him that he is not being exploited but really getting the whole fruit of his own work." Mr. Lewis' own comment is that here we have " the real core of the problem of getting rid of ca' canny so as to achieve the enormous increase that is now so desperately needed in our national income."

Clearly enough the plan has succeeded in the combined businesses to which it has been applied. Can it be extended to other concerns of the same kind, and to big industrial concerns of a different kind, such as factories, cotton mills and so on? Some people think that a retail business is certain to make a profit; they may even think of the profit as being the percentage added to the wholesale price of the articles which the shop sells. This, of course, is a mistake; a business may very easily make a loss; in fact, the concerns bought up by the Partnership were making losses. Something has turned them into profit-making concerns. Was it merely more careful buying and more skilful management? Or was it perhaps the result of a better spirit among all the personnel, which turned a slack trade into a busy one?

In a sense Mr. Lewis' book may be taken as describing the reaction of the twentieth century against the practices of the nineteenth. It recognises that the wage-earner and the salary-

earner can no longer be treated as mere cogs in a wheel; they claim, and rightly, something more than the weekly wage-packet or monthly cheque; they want a voice in the conditions under which they work and a share in the profits which their work has earned. As Mr. Lewis might put it, they want to be Partners.

J. E. ALLEN

Cambridge.

Labour. By P. SARGANT FLORENCE. (London: Hutchinson's University Library, 1949. Pp. 230. 7*s*. 6*d*.)

THIS book surveys the factors affecting the efficiency of the labour force. It is not concerned, except incidentally, with issues of wage theory, nor does it describe trade-union structure, but its object is to discuss recent facts and findings about the capacity and willingness of the worker; the causes, personal and general, of unemployment; and policy towards both. This discussion is directed towards present problems. More than one reason comes up in the course of it why we should be much concerned with the human factor just now. There is the need for getting everyone to do his best, to get the balance of payments right. So far as a high and stable level of employment can be maintained, the problem of incentives is raised in a new form, and personal causes account for a higher proportion of actual unemployment. Both the export task and high employment raise problems of mobility, too small or too great. Again, as the author says (p. 216), concern with redistribution rather than with the size of total income "rests on the assumption among wage earners that their share of total income has little connection with their own output and efficiency, but can always be made up by transference of wealth from richer classes. This assumption not so wide of the facts in nineteenth-century Britain will no doubt receive a shock from the logic of events in twentieth-century Britain after two world wars." At the same time, a good deal has been done in recent years to gather more information and try out new ideas about the human factor. I know of no other British work providing a conspectus of this field, and Professor Florence's timely book will be useful to students of economics generally and to all who are training for business.

A first part sets out the manpower budget, charts the conditions of employment that influence the human factor, and examines measures of efficiency such as output, accidents or turnover. There follow seven chapters devoted to the conditions

of employment, and it is here that I think readers will find the book most informative: the discussion of the optimum working week, for example, or of social relations in the place of work, or of methods of wage-payment, and of vocational guidance, contains much that is instructive or suggestive in itself, and gives some useful pointers to further reading. The treatment of unemployment which follows is on familiar ground. A last part on policy and progress concludes that "the key to social progress —the avoidance of unemployment and rising productivity per man and hence rising standards of living and amenities—lies today largely with the top management of big industrial enterprises whether co-operative or nationalized or controlled by capital. It is a problem in practical political science to find the staffing procedure which will bring the more efficient and enterprising managers to the top." (pp. 221–2.)

The author pays attention to schematics, and provides four schematic charts, in one of which, for example, Repetition, Routine, Red-Tape and Risk are displayed as the aspects to the worker of four features of technique and organisation; and the workers' reactions to each, and the ways of preventing or remedying it, are set out. I dare say this kind of device helps some students to get hold of the subject, yet it may be a perplexity to others who feel the difficulty of drawing dividing lines through an organic subject-matter. But there will be agreement that in basing his argument on ascertained fact, the author sets an example of method in the discussion of live issues, and provides, in summary or sample, a body of information in which few readers will not find some new point of interest.

E. H. PHELPS BROWN

London School of Economics.

Changes in the Cost-of-Living and the Distribution of Income since 1938. By DUDLEY SEERS. (Oxford: Blackwell, 1949. Pp. 84. 6*s.*)

READERS of the *Bulletins* of the Oxford Institute of Statistics will be familiar with a series of articles published by Mr. Seers during 1948. These articles represented a very large amount of statistical work on published data on prices and on national income and product. It was difficult, reading the articles individually as they appeared, to get a general view of the results

Mr. Seers had obtained. It is good, therefore, to have them collected together, as they have been done in the present small volume.

It is now clear that Mr. Seers' object is to make a broad analysis of the changes in prices and income from 1938 to the post-war period, represented generally by 1947. His work comprises a number of inter-related studies. The final product, in so far as there is one, is an analysis of the distribution of the national product, in real terms, between the various recipients and, in particular, between the working class and the middle class. One small table (p. 65) summarises his conclusions and it is simple enough to reproduce here in slightly modified form :—

Real Income (Net of Taxes)

(£ million at 1947 prices).

	1938.	1947.	% Change.
Working class	4,348	4,735	+9%
Middle class	3,599	3,354	−7%
Total	7,947	8,089	+2%

These figures represent the result of many complicated and hazardous estimates and certainly cannot be accepted as accurate to the last digit shown. But there can be no doubt that Mr. Seers has given us the right orders of magnitude.

There is much of interest to be derived as Mr. Seers proceeds on his way to his object. He had to " job backwards " and found many gaps in official data to be filled. He gives a division of total consumption in 1938, as recorded in the White Papers on *National Income and Expenditure*, between the working class and the middle class. The middle-class share, though obtained in round figures as a residual, is all we have to go upon as a basis for the construction of index numbers of middle-class cost-of-living. To get his results into real terms, he provides an estimate in detail of the increase in the working-class cost-of-living since 1938, something which the Ministry of Labour avoids deliberately in the new index of retail prices. He also ventures an estimate of the increase in the cost-of-living to various groups of middle-class families. Finally, he examines the Ministry of Labour's published index of retail prices paid by working-class families and gives it a reasonably clean " bill of health." In particular, he indicates that the percentage change shown since June 1947 would not be much changed if the weights were post-war and not pre-war expenditures.

In my own calculations on the same data, carried out independently, I am not always in complete agreement with Mr. Seers. There is, indeed, considerable scope for varying judgments in computations of price-index numbers back to 1938. One of the difficulties is that there is no detailed information on price changes within one large category of expenditure, that on food, either in the National Income White Papers or in the Ministry of Labour's index. This is a gap which should be filled. Another difficulty is the different classification of consumers' commodities in the White Papers and the Ministry's index. The main trouble arises in the category of "household durables" where the White Paper has two groups only—furniture and furnishings, hardware. The category in the retail-price index shows more sub-groups, and one of them (appliances) is divided between the two White Paper groups and includes some items such as cycles and sports goods which fall outside "household durables" on the White Paper definition. (Mr. Seers, however, is not correct, on p. 80, in saying that the White Paper category excludes radio and musical instruments.) Mr. Seers is not able to overcome this difficulty—and is not always clear in his explanation of what he has done. What is needed is more detail of the "household durables" category in the White Paper.

Another point on which I do not appear to be in agreement with Mr. Seers—and again he is not clear on his method—concerns the treatment of beer prices. The difficulty is the difference between prices on a bulk and on a standard-barrel basis. The price index of the Ministry of Labour uses a beer price which is, in fact, a compromise between the bulk and the standard-barrel prices (in my view, very appropriately). Sometimes Mr. Seers seems to follow this practice; at other times (*e.g.*, on p. 47) he appears to use the standard-barrel price generally favoured by the White Paper.

It is interesting to compare the increase, obtained by Mr. Seers, in real national product with that shown by the official index number of industrial production over the period 1938–46. The best comparison is to use what Mr. Seers calls the "gross product of industry," *i.e.*, national product *less* the pay of government officials and domestic servants, rents of dwellings and interest and depreciation of a non-industrial nature. In real terms and with 1947 weights, Mr. Seers gets an increase of 8% from 1938 to 1946. The industrial-production index, which is narrower in coverage by the exclusion, *e.g.*, of agriculture and services, shows a decrease of 4% from 1938 to 1946 with 1946 weights

(*Monthly Digest of Statistics*, August 1948). There is need for a closer examination here.

Mr. Seers' strictures on the Ministry of Labour, for avoiding a comparison of 1938 and 1947 in the retail-price index, are not altogether justified. The price increase for working-class families cannot, in default of comparable price quotations in the two periods, be given at all precisely. Mr. Seers, perhaps, would agree that we cannot do better than write it as 60–5%. The first object of the Ministry was to get weights for a new index, *i.e.*, a *proportionate* distribution of 1937–38 consumption priced at 1947 prices. Even if the separate price changes, 1938–47, were biased, the weights would come out reasonably well if the bias was in the same direction throughout. But such a bias—which might well exist—would throw out the 1938–47 price comparison. Further, from the data provided by the Ministry of Labour, it is easy enough to deduce an approximate price change for 1938–47 if *one* absolute change can be fixed. Such a price change is given by the "rent and rates" item, which cannot have increased by an amount much different from 10%. It is difficult to believe that this was not realised by the Ministry of Labour.

All this points clearly to the need for a post-war enquiry into working-class expenditure by means of family budgets. Indeed, there is a strong case to be made out for a regular series of budget studies. The Cost-of-Living Advisory Committee asks for a consideration of this point in their Interim Report (Cmd. 7077). There is, perhaps, even more need for budget studies on a comprehensive national scale of middle-class expenditure. As Mr. Seers observes (p. 18) "the lack of information on the expenditure of the rich is a major gap in our social statistics."

R. G. D. ALLEN

London School of Economics and Politics.

Small Business: its Place and Problems. By A. D. H. KAPLAN. (New York and London: McGraw-Hill Book Co., 1948. Pp. xiv + 281. 19*s.* 6*d.*)

EVEN in the United States, the supposed home of everything large scale, over 90% of all businesses are small whatever definition of small is adopted—and a normal one (p. 15) seems to be a hundred employees or less in manufacturing; ten or less in other

activities. This high frequency, together with the traditional American property-dispersion theme of Franklin and Jefferson, still sung (and acted upon) by Congressmen, make a thorough study like Mr. Kaplan's, "focusing the diffuse discussion," very welcome.

Introduction and definition occupy the first two chapters. The third, devoted to "prewar and postwar pattern" brings some disappointment. Under the heading of "The Areas of Small Business," Mr. Kaplan gives only the major groupings of manufacturing industries. This is unfortunate, since these wide divisions mask very great differences in the size structure of subdivisions which are easily obtained from the U.S. Census. "Miscellaneous Manufacturing" for instance is the official industry group in which the small plant appears in Mr. Kaplan's table to flourish the most. Only in this group do establishments employing less than a 100 employ the majority of all workers. Yet the group includes the making of photographic apparatus, a large-plant industry, with 80% of its workers in establishments employing over 250. At the other end of the scale textile mill, leather and leather products appear in Mr. Kaplan's table as a large-plant group, with over two-thirds of all its workers in establishments employing over 500. Yet the women's pocket-book, handbag and purses industry included in this group had 80% of its fourteen thousand workers in establishments employing less than 250 workers.

In spite of the fourth word in his title of *Small Business : its Place and Problems*, Mr. Kaplan has, in short, missed the opportunity given him by the admirably detailed U.S. Census of Manufacturers of studying precisely in what industries small firms or plants prevail. There is no discussion how far and why the women's clothing, the printing, the baking, the jewellery industry have small plants, whether their present size structure is likely to last, and whether existing large-plant industries might not (with technical changes or more specialisation or localisation) become of smaller scale. With the growth of "automotive transportation," as Mr. Kaplan indicates (p. 34), transport has on the whole become smaller scaled. This is partly because the investment in permanent way is made by the State. Might not a similar splitting of investment from management functions encourage small business in other industries?

The fundamental question of the comparative efficiency and vitality of larger and smaller organizations is dealt with in Chapters IV and V. Mr. Kaplan is able to bring in the evidence

of the Temporary National Economic Committee, and he provides a valuable clue to the answer. The available index nearest to measuring efficiency of different sizes of plant is perhaps the cost of some standard physical output and this is illustrated in detail with the production of standard barrels of cement, and of flour, and with the distribution of 100 lb. of milk. In all three industries the wide variety of cost within all classes of size is the outstanding feature. The small sizes show, on average, the higher costs. But they also show the widest variety, so that the actual lowest-cost plant may be a small one. The same greater variation round a lower average among smaller firms is shown when comparing slump and boom years in the ratio of net profits (excluding officers' compensation) to equity. In the boom year 1941, the two smallest classes of business (assets 50, and 50 to 99 thousand dollars) averaged a ratio of plus 3 and 10% instead of minus 32 and 15% as in 1932; the larger classes of business (up to assets of $10,000,000) showed less cyclical change, but still *averaged* in the boom year profit ratios higher than did the small businesses.

The wider variety in the efficiency of small firms is also brought out by their vital statistics. In three Minnesota towns, for instance, while only 16·5% of the larger manufacturing firms died during 1926–30 the percentage for the smallest sizes was 66·3% and 87·4%. Wide variety in efficiency results at one end of the scale in relatively high death rates for small businesses, but it should also result in relatively high rates of survival at the other end. The view of English economists that the small business has an advantage in management is thus compatible with the facts if it is carefully worded. Mr. Kaplan puts it (p. 103) that "the caliber of the management has on the whole been the most decisive factor influencing the success or failure of the small enterprise." Not *every* (or even the average) small firm has a management advantage but only *some*. It is these that survive, flourish and grow at the expense of the large firm.

A general comparison of small- and large-scale organisation inevitably extends from internal management to problems of finance and sales, where the small business is usually thought weak. Mr. Kaplan, in the relevant chapters (VII and VIII), does not deviate from this view, but adds considerably to our appreciation of the complex situation of the small man confronted with monopolistic practices such as threats of legal action for infringement of patents or price maintenance. The insistence of a large manufacturer that the retailer maintain a fixed price

for his manufactures is not necessarily injurious to the small retailer. It is usually the large retailer who cuts the prices of a few leading goods in order to publicise his "values" and thus undercuts the small retailer. Alternatively, the large retailer may order from small manufacturers a similar brand, undercutting the fixed-price brand, in which case the interests of small retailers and small manufacturers are opposed.

Mr. Kaplan's book is part of a large programme of research into the working of the free-enterprise system under the auspices of the Committee for Economic Development, of which Mr. Paul Hoffmann of Marshall Aid fame was a member. We look forward to further volumes of the same high calibre as *Small Business.*

P. SARGANT FLORENCE

University of Birmingham.

The Rubber Industry: A Study in Competition and Monopoly. By P. T. BAUER. (London: London School of Economics and Political Science, and Longman's Green, 1948. Pp. 404 + xiii. 25*s.*)

Report on a Visit to the Rubber Growing Smallholdings of Malaya, July–September 1946. By P. T. BAUER. Colonial Research Publications, No. 1. (London: H.M.S.O., 1948. Pp. 92. 4*s.*)

The Rubber Industry is a very interesting book. It includes the main findings of the *Report*, though not in such detail. This review will concentrate on the book. It presents a general picture of the rubber-producing industry, concentrating largely but not entirely on Malaya and the Netherlands East Indies, the two main sources of supply, and reviewing more briefly the phenomenally rapid rise of the synthetic-rubber industry in the U.S.A. As its sub-title implies, the emphasis is placed largely on the operation and results of the international rubber-regulation scheme. Mr. Bauer was given access to the papers of the International Rubber Regulation Committee and to the personal papers of Sir John Hay. In addition, he studied numerous reports, newspapers and books and made a tour of the rubber-producing districts of Malaya in 1946. He is very critical both of the previously accepted views on the industry, particularly on the relative efficiency of plantations and smallholdings, and on the administration of the regulation scheme, centrally and

locally. I am not an expert on rubber production, but Mr. Bauer's criticism is well documented and to me convincing.

He begins thoroughly in 1929, after the breakdown of the Stevenson restriction scheme, where Mr. Rowe's *Special Memorandum* No. 34 of the London and Cambridge Economic Service on Rubber stops. He covers fully the period of free competition from 1929 to 1933 and that of the International Rubber Regulation Scheme, which ran from 1934 until the Japanese invasion. He deals with the largely unsuccessful search for new sources of rubber after 1941, and the successful development of the U.S.A. synthetic-rubber industry. He concludes with two excellent chapters on the outlook for rubber, written, it would appear, in 1946 and 1947.

Mr. Bauer's strongest criticism of the regulation scheme, and more particularly of its administration by the Governments concerned, was that it discriminated against the smallholders and in favour of the plantations. In Malaya, as is shown both in the book and (more fully) in the Report, the smallholdings were under-assessed compared with the estates in the initial allocation of export rights; the prohibition on new planting and on the alienation of new land for rubber while some replanting of old rubber areas was allowed militated against their methods; the smallholders were grossly under-represented on the Malayan Advisory Committee; and research and advisory work was concentrated on the estates. (The Colonial Office and the Government of the Federation of Malaya have now accepted the view that in this period a disproportionate burden was borne by the smallholders.) In the Netherlands East Indies the prohibition on new planting again bore heavily on the native producer. In addition, the Government to begin with felt it impossible to give individual assessments to the small native producers and undertook to limit their sales by an export tax, the proceeds of which were to be used for the benefit of the areas where native rubber was important. To keep down supplies the tax had at one time to be so high as to take away 95% of the price; the receipts, far larger than had been expected, were by no means always used as intended. Finally, individual assessments were made and the tax repealed; but, without doubt, the natives were under-assessed compared with the estates.

Mr. Bauer produces much evidence to show that the smallholding is a more economic unit than most plantations. The complicated and expensive hierarchy on the plantations, their mistakes in planting and weeding policy and the ease with which

smallholders can fit together rice and rubber production, all favoured the smaller unit. Where rice production is anyhow moved from area to area, to leave the abandoned land planted to rubber makes the latter almost a costless by-product.

The Committee, however, charged with the duty of " maintaining a fair and equitable price level which will be reasonably remunerative to efficient producers " looked only at the estates, and even there not at the most efficient; thus it was generally assumed that some 80–95% of estate production was efficient. Moreover, measured cost figures were accepted, even though they came above prices at a time when the estates concerned were paying dividends. Thus, the Committee arrived at a figure of 8*d*. a pound as being the minimum to give a reasonable return to efficient producers; but the N.E.I. native producers supplied large quantities of rubber for two years for a net return of about 1½*d*. And the Committee's idea of a " fair price " moved upwards with every improvement of the market price.

The price, then, was high, in Mr. Bauer's view well above the long-period supply price. But it was not stable. During three of the four calendar years of restriction before the outbreak of war the highest price exceeded the lowest by over two-thirds.

This was a period when natural rubber held a practical monopoly. The future outlook depends partly upon the policy adopted towards synthetic rubber in the U.S.A. Synthetic and natural rubber between them could supply far more than the world's probable demands. The existence of the synthetic factories should provide a ceiling above which the price of natural rubber cannot be lifted. But, in Mr. Bauer's view, natural rubber producers, largely smallholders but also the more efficient estates, should be able to produce at a low enough price to undersell synthetic rubber, unless this is protected. (He suggests at 6*d*. a pound, at 1945 costs, for 1½ million tons of natural rubber.) If the U.S.A. provides only moderate protection, then Mr. Bauer advocates a period of price competition, coupled with a buffer-stock scheme to prevent undue price fluctuations; this should drive out the less-efficient producers, a most necessary procedure after a long period of protection. If the U.S.A. were to keep up her full synthetic production, then some control scheme would be required.

Above all, the prohibition on replanting in Malaya should be removed (this has now been done). Land should also be freely alienated for rubber. Without these measures the Malayan smallholding industry will be destroyed, since other territories and the estates will expand production.

Mr. Bauer's conclusions are interesting not only in regard to rubber, but also for their significance for the operation of control schemes in general, as contemplated in the Havana Charter. To take only a few: first, the rubber scheme was operated by Governments, as are to be the Havana commodity-control schemes; but the interests of small producers (and of consumers) were neglected. Secondly, the rubber scheme indicates that those who gain most are large producers in small countries (for small countries generally extort fairly favourable quotas). Thirdly, to fix prices on measured costs means fixing them too high. Finally, once a scheme has been introduced its sponsors cling to it grimly, even when it is no longer required (Mr. Bauer gives several instances of this happening for rubber).

He also explodes the commonly held views that large-scale production is more efficient and more responsive to price changes. For rubber both these theories are untrue. Not only could the smallholders undersell the estate producer; but also their supply fluctuated more with price in the period of free competition.

The book (and the Report) are well worth reading through. But those who cannot spare the time will find the most crucial parts summarised or dealt with in Chapters 14, 19 and 20.

RUTH COHEN

Newnham College,
Cambridge.

Comparative Economic Systems: capitalism, socialism, communism, fascism, co-operation. By WILLIAM N. LOUCKS and J. WELDON HOOT. (New York: Harper Brothers, 3rd edition, 1948. Pp. xv + 810.)

IN this country the study of comparative economic systems, of such importance for the institutionalist, has been relatively neglected as an academic subject. Perhaps this is because, with a narrowing focus to economic analysis, it has fallen between the recognised academic stools; perhaps because of reluctance to grasp controversial nettles boldly. To judge from this impressive 800-page volume, now appearing in its third edition (the first was in 1938), the subject must be well and widely established on the other side of the Atlantic; and the initial feeling of a mere Englishman on reading it is inevitably one of admiration, tinged with envy, at so much information so systematically and palatably packed (in short sections each tersely labelled) within the

covers of a single text-book. One would be ungrateful not to pay tribute to the immense care and industry which its compilation must have cost. Professional skill could scarcely go further in designing everything with a constant eye upon the lecture-room and the seminar : well-balanced chapters of " pro " and " con "; judiciously chosen book-lists for further reading appended to each of the nine parts into which the book is divided; lists of " questions for class discussion " after each chapter and " subjects for student reports "; and finally the texts of *The Communist Manifesto* and of the 1936 Soviet Constitution in appendices, and a twenty-four page index.

Yet, one cannot help being of two minds about a work of this kind. Firstly, there is the stubborn English prejudice that so streamlined a text-book may have defects of its nature as well as merits : that to the undoubted convenience which it holds for the student may be joined the disadvantage of appearing so comprehensive as to deter the student from ever looking beyond its pages and finding his own stumbling way among other sources. Secondly, there is a difficulty about objectivity : a difficulty which is specially great in comparing rival economic systems, since to each system there is its own social philosophy, and common assumptions by which they can be judged are difficult if not impossible to find. Most evidently in relation to the study of the U.S.S.R., what are commonly accepted as standards of objectivity vary with time and place. If one is to evaluate, one must implicitly or explicitly adopt some body of assumptions which will inevitably prejudge the issue (as do some of the remarks in the opening chapter of this text-book about universal principles and " the necessity for a price system "). If one seeks to escape this difficulty by simply describing facts and listing rival arguments, the result is likely to be flat and uninspiring. It may well be better for the student to hear the claims of each system from the mouth of an exponent of it than to be fed with ready-made " evaluations " under the guise of an objectivity which their author probably cannot sustain.

Subject to such difficulties, inherent in its design, this book can be said to have succeeded remarkably well. Special praise is due to the descriptive chapters, which are rich in detail, well-informed and lucid. The account of British legislation and policy since the war and of the Soviet economic system are specially to be commended; both of these providing the most convenient summaries of their kind which the reviewer has seen. The summaries of doctrine (*e.g.*, of Marxian theory) are less successful;

possibly because to give depth and freshness to the exposition of a doctrine requires an insight deriving from sympathy. Nevertheless (with one or two qualification to be mentioned later) they are very carefully and faithfully done, if sometimes lacking in subtlety or originality. Least successful are the chapters on evaluation. Superficially at least the balance is as well kept as any author could be expected to keep it (the chapter on the Failures of Capitalism being somewhat longer than that on the Successes of Capitalism, whereas rather more space is given to the Failings of the Soviet System than to its Accomplishments). But one sometimes has the impression that impartiality has become an artifice; as when a number of rather spurious objections to Socialism (such as that it is "un-American") are solemnly paraded in order to be demolished as "superficial" (to clear the way for "basic objections"), or doubt is expressed as to whether the fuel crisis of the 1946–47 winter in Britain was really due to the Government or to exceptional weather (p. 372), or about the truth of German plans for plundering the U.S.S.R. (pp. 510–11).

Inevitably in a work of such generous dimensions there are special points which one is inclined to call in question: for example, the equation of Socialism with the social ownership of producers' goods and of Communism, by contrast, with the social ownership also of consumers' goods (p. 266); the statement that land or capital could not be priced by a trial-and-error process if it were in single ownership (p. 337); the neglect of the "industrial reserve army" as a factor in Marx's wage-theory (p. 240) and of his theory of "price of production" as distinct from "value" (pp. 172–82); the apparent confusion, in connection with Soviet data, between output-values expressed in the prices of a single base-year and output valued in the current prices of successive years which can only be made comparable by using an index number of price-changes (p. 508 and p. 597); the statement that the Soviet turnover tax is "price determining" rather than "price determined" (p. 539) or that monopoly is something "foreign to capitalism" (p. 87). Some of these, admittedly, are matters of interpretation on which opinions vary, and different readers may find different statements to question according to their points of view. But for so large a work in so controversial a field, it is surprising that such questionings are not more numerous. Judged by what it claims to be—a compendium of information and an introduction for the elementary student—the work has very substantial value. A surprising amount of incidental data is dexterously worked into it, from

statistics about productivity, productive capacity and income-distribution in the U.S.A. to a table of comparative output-figures for Soviet and American industry at various dates and details of the calorie intake of the British consumer. Teacher as well as student will find it a handy reference-book on a variety of topics.

MAURICE DOBB

Trinity College,
Cambridge.

Dynamique Économique. By RAYMOND FLORIN. (Soissons (Aisne) : Imprimerie Saint Antoine : published by the author at 2 rue Charpentier, Soissons, 1948. Pp. 115. 500 fr.)

THE appropriate English title for this highly individualistic work would be "The General Theory of Interest and Money." The first edition, here reviewed, is unfinished, certain chapters being represented only by a summary in the table of contents. The rest compresses within 115 pages a systematic development from first principles of a mathematical model of the economic system. The introduction prophetically remarks "Certains reprocheront sans doute à notre texte d'être trop concentré . . ."; and it is certainly followed by a strong, if stimulating, draught of theory.

M. Florin is "an original, being no man's copy." He refers to having read Keynes, but only after his views were formed. He clearly believes that he is talking about a world of trade cycles but he hints only vaguely at the effects of unemployment and of changes in effective demand, so he is not marching in step with the Keynesian contingents. He admits to being influenced by Böhm-Bawerk, but apparently draws no overt inspiration from any modern economist. M. Florin is also an enthusiast, with a profound belief in his mission, and his faith removes mountains which the rest of us find distressingly solid. He will not, for instance, admit an index-number problem—that has been solved by M. Divisia. Either his compressed style or his enthusiasm lead occasionally to statements which cry aloud for explanation or qualification. What would Marshall, or a board of examiners, have thought of : "En ce qui concerne la *part du travail* il n'y a aucune difficulté et les *salaires* sont déterminés par la productivité marginale du travail" ?

The book is divided into three parts. The first is concerned mainly with definitions. The second builds up a theory of the

rate of interest in a non-monetary economy—what an elementary text-book might describe as "the rate of interest as determined by real forces"—and then discusses the movement, over the long period, of the stock of capital, production, consumption and saving. The third part discusses "the rate of interest as determined by monetary forces" in a crude version of the liquidity-preference theory. M. Florin then assumes that the utility of a marginal unit of money (*i.e.*, of liquidity) is proportional to the work that money has to do, and thus to:

Volume of production × Price level ÷ Quantity of money.

This exceedingly doubtful assumption leads to an equation, relating the price level to the volume of production, the quantity of money, the marginal productivity of capital and time. Various solutions are obtained for the price level in terms of time, including a demonstration of the growing instability of the price level as the marginal productivity of capital declines. A final chapter puts the whole thing in a simpler form, that the stability of money values depends on the equality of a "natural" and a "money" rate of interest; and the Remedy emerges, in the shape of a tax on money during slumps, and a tax on investment during booms.

Before the Reader decides that he has heard all this before and returns his 500 francs irrevocably to his store of liquidity, it may be worth remarking that parts of M. Florin's work are exceedingly stimulating. It would be no bad exercise for the third-year student to work through the definitions of economic quantities, and make sure that his mind grasps the full precision of the distinctions between (say) *productivité pure, rentabilité pure, bénéfice de production, profit de production, superbénéfice de production* and *bénéfice de valorisation*. The whole treatment of the "real-forces" rate of interest, with its explicit formulation of the effect of changes of relative prices, is distinguished by its careful and accurate mode of expression. There is work of good quality here, and we shall look forward to the appearance of M. Florin's second and complete edition.

C. F. CARTER

Emmanuel College,
Cambridge.

Theorie und Praxis der modernen Einkommenbesteuerung. By F. NEUMARK. (Berne: A. Francke, 1947. Pp. 456. S.fr.35.)

IT is a curious circumstance that although in England we have a longer and more varied experience of the working of income

taxes than any other country, the best discussions of the subject seem all to come from abroad; one has only to think of Professor Seligman, Professor Jean L'Homme (whose *Impôt sur le revenue en Angleterre* of 1939 is still a standard work), and now Professor Neumark (now of Istanbul) has added further to our shame by producing a really outstanding comparative study of modern income taxes. It will be an immense pity if the expense of translating and republishing such a solid piece of work should stand in the way of its greater availability to English readers.

The work is divided into two parts. In the first, general problems are discussed, mainly from the theoretical standpoint, but with frequent reference to the practical experience and special problems of particular countries, of whose income taxes Professor Neumark has an encyclopædic knowledge. Part II consists of a series of detailed and up-to-date studies of the working of income taxes in various countries—Great Britain, Germany, France and the U.S.A. About fifty closely packed pages are allotted to each; and shorter accounts of income taxes in Italy, Switzerland and Turkey follow.

When so much has been provided it seems churlish to ask for more: but it may perhaps be suggested that (now that information can once more be collected) it would be a most desirable rounding off of the comparative study if the rich experience in income taxes of the Scandinavian countries, and also of the Netherlands, could also be included. This need not add materially to the size of the work and would greatly enhance its value.

Between them the nine chapters in Part I discuss pretty well every subject relevant to the use of income taxes. Chapter 3 contains a useful discussion of the definition of income for tax purposes, showing how similar-looking taxes in different countries may be completely different in effect, according as they are assessed (i) on actual annual income, whether adjusted to particular personal circumstances or not; (ii) a conventional or notional income (a practice which may be used either because the revenue authorities cannot compass anything more accurate, or deliberately to avoid such difficulties as fluctuating incomes); or (iii) the concept is more or less inclusive of capital items. Chapter 5 contains an informative account of the various means that have been adopted at various times and places to adjust the burden of income tax to ability to pay.

Perhaps the two most interesting chapters in this Part are Chapter 8, which discusses income tax in relation to industrial fluctuations, and Chapter 9, which is concerned with the vexed

question of the shifting of income tax. On the first Professor Neumark very sensibly draws attention to the differences which may occur according as the tax bears on workers' incomes on the one hand and company profits on the other, and is highly progressive or more or less proportional. He is sceptical of the use of income taxes as anti-cyclical devices so long as the evasions and lacunæ to be found in most existing income taxes are not dealt with first.

Professor Neumark clings tenaciously to the view that there is something to be gained from discussing the incidence of income tax in terms of shifting (in the narrow sense of a direct effect on prices); but he picks his way carefully between the crude view (which still appears to be common in the U.S.A.), that particular price mark-ups are to be expected when rates of (net) income tax are raised, in exactly the same way as occurs when the rates of an outlay tax assessed on a particular good are raised, and the almost equally misleading view, frequently fathered on Ricardo, that income tax cannot be shifted because prices are determined by the costs of the marginal firm, which (by definition) has no taxable profits. Professor Neumark points out, however, that a workers' income tax which leads to a proportionate increase in wages is, in fact, much the same as an outlay tax.

The value of the book is much enhanced not only by two very complete indices, but also by a detailed analytical contents, which should enable the reader whose German is not very fluent to turn up the point he is after with a minimum of trouble.

URSULA K. HICKS

Oxford.

The Fiscal Impact of Federalism in the United States. By JAMES A. MAXWELL. (Harvard Economic Studies 79, Harvard University Press (London: Geoffrey Cumberlege), 1946. Pp. 427 + xvii. 28*s*.)

WITH this book Professor Maxwell continues the research into the fiscal problems of federalism which he began with his *Federal Subsidies to the Provincial Governments in Canada.* The enlarged scope of the enquiry has led to a substantially altered form of presentation: although the approach is again primarily historical, the material is organised around the main types of government expenditure—defence, justice, education, public assistance, relief and work relief, public works, roads, health, unemployment compensation—and of government revenue—public domain, income taxation, commodity taxation, death

taxes, government instrumentalities—instead of by types of federal-state fiscal arrangement. Each chapter combines a summary of the recent (to 1941) fiscal history of a particular budgetary item with a discussion of issues of principle and the lessons of experience.

This method of presentation has the advantage of making the book a convenient reference-work on the federal aspects of particular government activities—although the five-year delay in publication is regrettable—but it seems ill-adapted to the author's announced thesis that "American federalism has fiscal problems for which outright centralization is no cure." It is difficult to derive from these specialised chapters any general view of the fiscal problems of American federalism and the standards which must be met in solving them, or of the progress already made in incorporating these standards in legislation. A discussion of general standards *is* provided in the concluding chapter; but the historical prologue, which might have provided a survey of recent trends in thought and legislation on federal finance, is instead devoted to the nineteenth-century background.

The fiscal problems specifically attributable to federalism arise fundamentally from disproportionate allocations of fiscal resources and governmental functions to the different levels of government: in the United States, the post-revolutionary fear of war led to the granting of strong fiscal powers to the central government, while the major functions were vested in state (and local) governments. The disparity, which has become significant with the growth of government responsibilities since the nineteen-twenties, could be eliminated by constitutional changes re-allocating functions towards the federal government; but while Professor Maxwell is not opposed to further centralisation, he believes that the decentralisation of administration in a federal country has good justification, and that the solution lies rather in the further development of federal-state co-operation. It is for this reason that he analyses in such detail the history of existing arrangements in the main budgetary categories.

On the expenditure side, the chief method for bridging the resources-functions gap has been the grant-in-aid, although tax-offsets have been used (with surprising success) to promote State provision of unemployment compensation. The grant-in-aid technique has raised several difficulties, chief of which is the dilemma emphasised by Professor Maxwell:—

> "In a federal country, diverse standards are prevalent; inter-area transfers are important; and therefore grants

> should be tightly conditioned. But to surround federal grants with numerous conditions is to assume a homogeneity in state governmental needs which does not exist; to prescribe uniformity where there are deepseated reasons for diversity is an error."

Other problems emerge in the discussion of particular cases: matching requirements may distort the expenditure-pattern of states with limited resources (vocational education); withholding of grants to enforce federal standards may penalise the wrong people (old-age pensions); grants to stimulate desired state activities may not ensure efficient or honest administration (work relief).

On the revenue side, disproportion of resources to functions has led to multiple taxation, often on conflicting tax bases, and to attempts by states to exploit revenue sources which they are not equipped to administer. Professor Maxwell discusses the main reform proposals—crediting devices, federal collection with state sharing and transfers of tax jurisdiction. The first two encounter administrative problems, the last raises the question of compensation; the solution, Professor Maxwell argues, must be co-operative and general.

In the concluding chapter the author attempts a theoretical analysis. The "ideal" revenue-expenditure relationship indicated by an abstract model constructed on Pigovian lines is blocked in a federal country by the two impediments of constitutional rigidity and regional heterogeneity, impediments which may be aggravated by the grants-in-aid device. Conditional grants may, however, be used to promote the "ideal" if a minimum standard is made the aim, services are grouped, and grants put on a variable-ratio basis related to *per capita* income. On the basis of this theoretical argument, Professor Maxwell proposes a series of moderate reforms of the American fiscal system.

The book consistently maintains the level of careful scholarship set by the author's earlier work. Aside from the doubts expressed above about the form of presentation, it may only be suggested that, in view of recent changes in the scope of fiscal policy, the theoretical model in the Conclusion might have been broadened to include the requirements of a full-employment programme.

HARRY G. JOHNSON

Jesus College,
Cambridge.

The Monetary Problem of France. By PIERRE DIETERLEN and CHARLES RIST. (New York : King's Crown Press (London : Geoffrey Cumberlege), 1948. Pp. xvii + 98. 14*s*.)

THIS is the second volume in the series prepared by the Carnegie Endowment for International Peace, on post-war monetary problems in Europe. (The first volume, *Monetary Reconstruction in Belgium*, by Leon H. Dupriez, was reviewed in the September 1948 issue of this JOURNAL.) The main body of the book is written by Professor Dieterlen, of the French National Economic Intelligence Centre, Professor Rist confining himself to a pungent Preface and Supplementary Chapter.

Professor Dieterlen sees French monetary experience since the Liberation as part and parcel of the disorder since the collapse of the Gold Bloc in 1936. He therefore devotes much of his space to the conditions that have made a coherent policy ever since that date peculiarly difficult for France. The table of budget deficits, with its minus sign for every year from 1930; the lack of control of the banking system, despite the appearances of nationalisation; the disposition of the Liberation governments to rely on controls of the British type, though Britain had the advantage that her food supplies were largely channelled through the ports, while France depended on peasant production; and the strengthening of trade unionism by participation in Resistance : on points such as these the book is a mine of concise and valuable explanation. Perhaps the most convincing passage in the whole book is that giving the case against a deflationary operation of the Belgian type.

On the other hand, I found the passages of theoretical analysis (especially those on pp. 14–15 and 48–51) unsatisfactory. The fallacy that a budget deficit is not inflationary if financed by long-term loans dies hard. The theory of Productive Credit seems to have won a new lease of life in post-war Europe : as industrial production returned towards normal levels, more money was needed to finance the bigger volume of business, and this fact has been confused with the old banking view that credits to finance genuine production cannot be inflationary.

In foreign exchange policy Professor Rist puts forcefully his case for free exchange rates. He believes that Marshall Aid will inspire confidence which will bring out the hoards of gold, so providing the French authorities once more with international reserves, while the balance-of-trade problem is solved by the "rather freely" fluctuating exchange rates. (A passage on

pp. 64–5 makes me wonder whether Professor Dieterlen agrees.) Professor Rist castigates the I.M.F. for objecting to free gold markets, which, according to his analysis, would help to solve the problems. His argument appears to miss the point that the I.M.F. would agree to adjustments (perhaps fairly often for a time) of the exchange rate and that its really strong objections are to multiple exchange rates and the gold-price devices which have the same effect. It is these devices that might properly be described as "contrary to the very aims of this institution."

I have perhaps been unduly critical, but I cannot escape the feeling that this book reflects the confusion of French monetary thought. The weakness of a monetary system is that it allows a community too easily to begin to do too many things at once. Then, when the trouble does appear, it takes the shape of a monetary crisis and purely monetary remedies are thought appropriate. When the monetary remedies prove inadequate, the fatalistic opinion that "things are in the saddle" causes a swing to the other extreme. At either extreme, plausible arguments are available, and it is extraordinarily difficult to achieve a sound synthesis of monetary policy with other branches of economic policy. That France has not achieved such a synthesis this book bears witness all too clearly. But perhaps France will yet muddle through.

R. S. SAYERS

London School of Economics.

The Monetary Policy of the Reserve Bank of India. By K. N. RAJ. (Bombay: National Information and Publications Ltd, 1948. Pp. 177. Rs. 12/-.)

DR. RAJ has rendered a valuable service to students of public finance by writing this book on the operations of the Reserve Bank of India during its early years and the motives by which these operations were guided. The theme of the book, suitably illustrated with statistics and charts, was well chosen for various reasons. The Reserve Bank of India, which entered on its duties in April 1935, was one of the many Central banking foundations which owed its creation to monetary developments after the 1914–18 war. This was a period of collapsing currencies and chaotic conditions of Government finance in many countries. Currency stabilisation was an urgent need. The most promising route to this end was held to be the vesting of the responsibility for monetary management in the hands of strongly established

Central banks, exercising powers vested in them by statute and as far as possible independent of the State. Thus after a long political struggle the Reserve Bank of India was based on the shareholder principle and, though in intimate relations with the State, the Bank was to be free of Government interference in its day-to-day work. As in the case of the Bank of England, the statutory position in India has now changed and the Reserve Bank has become a State institution. Dr. Raj's book thus deals with the first distinctive phase of the Bank's existence.

But the early record of the Reserve Bank also merited examination for other reasons. It represents the case of a Central Bank, exercising its functions in an economy linked on the monetary side with sterling by the maintenance of the parity of the rupee at 1*s*. 6*d*. sterling. Dr. Raj indicates the limitations (not necessarily disadvantageous) that such a situation imposes on the freedom of the central monetary authority. At the same time he holds that it was open to the Bank to have made a bolder approach than it did to the distributional problems in monetary management. Dr. Raj explains the lack of success in the efforts to develop a bill market in India largely to the reluctance of moneylenders and indigenous bankers to accept the discipline which participation in the reserve system involved.

This illustrates one of the most interesting topics covered in the book, namely the influence to be expected in an undeveloped economy from the introduction of an advanced organ of monetary control. Dr. Raj sets forth the various attempts made by the Reserve Bank to extend the benefit of low money rates to the agriculturist through the medium of the "scheduled" banks, included in the Reserve system, and to the later and more promising efforts through the Provincial Co-operative Banks. The Reserve Bank was certainly hampered in this side of its work by the intractabilities of the Indian economic structure. Dr. Raj cites the case of an indigenous banker, who wrote to the Reserve Bank : "Our business is based on strict secrecy and it will greatly hamper our business if we make up our minds to show our account books. . . ." Dr. Raj holds that a real reform that would overcome the rigidity of the present situation would have to present the rural masses with an adequate substitute for all the services that the moneylenders and indigenous bankers have so far provided. This raises the question of the proper scope of a Central Bank's activity. The case for strict restriction of these activities is strong, as the Reserve Bank enjoys a privileged position, but if the new tasks cannot be

undertaken by a commercial bank, it may perhaps in the case of an undeveloped economy such as India's be necessary for some official agency to undertake them. But this still leaves open the question whether this should be the Reserve Bank.

In the course of his study Dr. Raj gives a critical appreciation of the theoretical background of central banking in the circumstances of India and deals with the Bank's capacity to regulate the supply of money by open-market operations in securities and in sterling exchange, which were largely governed by the need of ensuring that the sterling requirements of the Government were duly provided. This leads to a discussion of the methods adopted to finance the shortage of rupee resources needed to cover the war-time requirements of the Government of India and other Governments, notably the United Kingdom, whose purchases of war-like stores, foodstuffs and such-like in India greatly exceeded the value of goods imported. This was the genesis of the "sterling balances" on the one side and the inflationary process on the other. Dr. Raj remarks that "of the total deficits of Rs. 3000 millions incurred in India between September 1939 and March 1946 not more than Rs. 800 million were met by borrowing from the public," and that "nearly two-thirds of the deficits were financed by the direct expansion of the liabilities of the Reserve Bank." The inflationary phase, the climax of which Dr. Raj dates in the first half of 1943, nearly precipitated disaster, but a more active policy in the monetary field and by Government in the matter of economic controls in 1943 restrained the inflation just in time. Its recrudescence shows, however, that the menace is still likely to test the resource and will-power of the authorities.

The later chapters of the book deal with this episode of Indian finance, including the repatriation of India's external debt, and contain Dr. Raj's suggestions for future developments. The war brought tremendous problems to the Reserve Bank in its early formative years. Whatever shortcomings there may have been in coping with these problems, no reader of Dr. Raj's book is likely to challenge the view that the creation of the Reserve Bank was timely and has equipped India with an organ whose value will be increasingly recognised in the new period of history that self-governing India has now entered.

CECIL KISCH

London.

Primitive Money in its Ethnological, Historical and Economic Aspects. By Paul Einzig. (London : Eyre and Spottiswoode, 1949. Pp. 517. 25*s.*)

No doubt, unduly simple views of the nature of money have limited the activities of many field-ethnologists and prevented properly detailed investigations into the existence of money and its functions amongst primitive peoples. Yet economists, on the whole, have not profited from what information is available, and have adopted grossly simple views of the origin and development of monetary systems, assuming, without evidence, a more or less linear development of monetary systems from an initial state of barter. Dr. Einzig's book serves as a warning to ethnologists and economists alike. In a masterly summary of the available material, recalling Sir James Frazer's encyclopædic collection of a different kind of material in *The Golden Bough*, Dr. Einzig presents the relevant facts about the uses of money (provisionally defined in a wide and elastic manner) amongst primitive peoples still surviving, without neglecting the evidences of prehistory and history. Clearly, ethnologists have missed many opportunities of delving deeper, and some of us, who have worked in the field, will feel that they should have done better; while economists, who play with theories of the origin of money, are revealed as indulging in pure fantasy.

While the principal value of the book lies in the data assembled, representing an enormous labour, as the excellent bibliography shows, economists will, no doubt, be more interested in the theoretical sections. Adopting a reasoñably elastic definition of money, which precludes the use of such simple criteria as medium of exchange or standard of value, the author devotes some space to consideration and criticism of the various theories of origin that have from time to time been suggested, and the conclusion seems to emerge that money has originated and developed by a multiplicity of routes. In particular, there is little evidence for the view that money has evolved merely as a rational device for overcoming the difficulties of barter—it is, indeed, not uncommon for highly developed monetary systems to exist alongside a flourishing system of barter-exchange. Even less evidence exists for the generalisation that credit is the last refinement of a monetary system to emerge—in fact, we find clear indications of the decay of well-developed systems of credit in barter-economies, as money has come to take the place of credit.

In sections devoted to the value of primitive money and

primitive monetary policy, Dr. Einzig is faced with peculiar difficulties. In this particular field monetary theory is by no means settled even in its application to a modern western society, in spite of the all-embracing nature of a single price-system and fully developed arbitrage. Where, under primitive conditions, markets are conspicuously imperfect, currencies often multiple, exchange by barter flourishing alongside exchanges against money, the concept of price-level, or even system of prices, may have little meaning, and the applicability of such analytic devices as the quantity theory is questionable. Moreover, ethnologists have not, until recently, set themselves to observe with any care such phenomena as price-formation and price movements.

This book should, and it is Dr. Einzig's hope that it will, encourage further research by ethnologists in this important field. It is a field that has been too little explored, and the material is fast disappearing. That an economist, well known for his incursions into contemporary monetary problems, should have switched his labours with such success into a field so alien in its approach, if not altogether in its materials, is a challenge alike to ethnologists and economists.

W. E. ARMSTRONG

University College,
Southampton.

Company Annual Reports to Stockholders, Employees, and the Public. By THOMAS H. SANDERS. (Harvard University: Division of Research, Graduate School of Business Administration, 1949. Pp. xiii + 338. $3·75.)

THIS American survey and resultant study of corporate annual reports is a painstaking piece of work much concerned with the presage of popular responses to the form and content of such documents. It is well written and well produced, and as one might expect there is emphasis upon those drafting requirements which make for a true and fair disclosure of stewardship. There is an air of confidence about business enterprise in America which suggests that it has everything to gain from responsible reporting, and Professor Sanders is not slow to quote a comment of Sir Henry Clay's when visiting the University of Pennsylvania in 1947, to the effect that "the so-called capitalist system, so far from failing, has been almost too successful in the interests of its own survival; it has encouraged the great mass of our population to believe that

the increase in wealth is easy and inevitable, and depends no longer on incentive and appropriate organization . . . ."

Adopting the familiar institutional standpoint of accountants, Professor Sanders divides the contents of his study into three main parts. The first deals with the scope and problems of the annual report itself, the second is delineated by the caption " the parties of interest give their views," while the third has the character of a monograph on accounting practices.

American reports are growing into something more than a means of information to stockholders. The larger companies regard it as a *public* duty to disclose all material facts concerning their enterprises on the grounds that the more is known about them the greater is public confidence in them. As a consequence, the American corporate annual report is coming to be looked upon as a vehicle of public relations. Professor Sanders takes the point that the businessman is really engrossed in producing goods to satisfy human wants, " in maximum quantity, in satisfactory quality, and as efficiently and cheaply as possible." To this end he must organise his resources to the best possible advantage, a by no means easy task. So occupied he is working as much for his customers and employees as for his stockholders. Thus, concludes Professor Sanders, " he must confine himself, in his annual reports, to telling of his problems and his efforts to deal with them as directly and convincingly as he can, and hope that a plain tale truly told will do the job." There can be little question that this prospect of the function of the annual report is unassailable.

One interesting American development, well ventilated in this book, has to do with the use of the annual report as a means of interesting employees in the financial results of a company and the operating policies of its management. Some companies have gone to the length of distributing their annual reports to all their employees, and there is a degree of evidence to show that some of the recipients are genuinely interested in the contents of these documents.

It is well that Professor Sanders should bring the weight of his experience to bear upon the importance of objective standards of measurement, as exemplified by acceptable principles of account (so far as they go), in the construction of those financial statements which constitute the foundation material of all annual reports. At one point in his book he tells us that, in 1946, of the 525 companies surveyed 21·7% presented a single-step income statement, many of which *classified costs by factors of production*. The latter comment should please many applied economists, for it marks the

beginning of a serviceable economic classification in published accounts.

There is much to be said for the furtherance of a better understanding of the problems and practices of business administration with a view to contributing towards their improvement. Such was the practical research standpoint informing the conception and carrying out of this work. Nevertheless, we cannot but regret that authors of business studies never seem to feel any vital necessity to pass beyond the expedient boundaries of utilitarian purposes. For example, although Professor Sanders does not neglect the case for uniformity in accounting presentations, particularly within industries, he has evidently not felt it necessary to carry his study through to the deeper underlying issues of invariance as thought of in relation to both the form of accounts (whether applied to persons, institutions, governments or nations), and the standards of accounting measurement. So to have done might have contributed to our knowledge of the formal economic accounting pattern of the business enterprise sectors of national economies, thereby helping forward the practical development of social accounting.

F. SEWELL BRAY

Department of Applied Economics,
Cambridge.

NOTES AND MEMORANDA

OFFICIAL PAPERS

Transport in Ireland

Córas Iompair Eireann (the Irish Transport Company) incorporated on January 1, 1945, under the authority of the Irish Transport Act, 1944, operates a considerable and diversified transport system throughout Southern Ireland. The financial results of C.I.E.'s operations have been unfavourable, increasingly so since 1946. In 1948, Sir James Milne, formerly of the G.W.R., assisted by two British railwaymen and the Director of the Hays Wharf Cartage Group were asked to " review the position . . . and report to the (Irish) Minister for Trade and Commerce " on the means of restoring " the financial position of the public transport companies "; co-ordinating " rail, road and canal transport " and ensuring " the most efficient and economical transport system." Their report [1] suggests certain economies, including a 5% cut in staff, and proposes an increase in passenger fares and a more intensive exploration of the revenue-earning possibilities of excursion tickets and other concessions. An increase in the duty payable by long-distance hauliers was also to be expected; but another suggestion for establishing a " fair basis " between C.I.E. and its competitors is more novel. Railways, inland waterways and public roads, it is affirmed, are all parts of a national highways system. Responsibility for this system should be vested in a Central Highways Authority. Carriers, whether by road, rail or waterway should contribute to the combined costs of all these highways upon " a fair and equitable basis." The railways in future will thus pay for the use of their tracks rather less than the present costs of maintenance. The Highways Authority will have to find the balance estimated, on 1947 figures, at about £500,000. This sum, it is suggested, might be raised by a general increase in the (motor) fuel duty. A good case can be made out for relieving the railways of that part of their overheads which is represented by their nominal capital and the costs of maintaining lines no longer required for strictly commercial purposes. But there is surely no case at all for levying these expenses, or

[1] *Report on Transport in Ireland*, 1948. (Dublin : The Stationery Office. Folio. Pp. 85. *3s. 6d.*)

any part of them, on to their rivals the road carriers, who neither need nor use these expensive and economically obsolescent railway tracks?

Equally debatable are the proposals for the future of road transport. C.I.E. is recommended to withdraw its own road services as it can improve rail connections between the same points. "The activities of independent road operators for reward should be restricted to local services, to services in special areas or on routes where they would not be competing with the railways and canals" (!). They and private carriers are reminded that "the interest of individual traders who desire to use their own vehicles, and of licensed operators providing only a limited service, should be subordinated to the interest of the majority who have to rely on public services." These drastic recommendations are based upon two surprisingly naïve propositions. First, that "the independent haulier and merchant user should supplement and not supplant the public service" and second, that "it is clearly in the national interest that as much traffic as possible should be conveyed on the railways and canals."

Sir James Milne and his colleagues have done their work thoroughly and in detail. Their Report can be commended as a comprehensive study of the Irish Transport system, even down to the condition of the hedges and the width of the swathes scythed alongside the tracks. There is, however, presupposed throughout a complete coincidence between the interest of established public carriers (particularly railways) and the general welfare of the community. Their recommendations for the co-ordination of road and rail are important, consequently, more as an expression of the railways' case against road competition and the public carriers' against the private user. They can not possibly be defended as a basis for the future policy of a transport system part of which is now to be owned outright by the State. If, indeed, new methods of performing public services were to be confined to supplementing but not supplanting the old, just because the financial interests of the latter were prejudiced, technical progress in industries clothed with a public interest would be stopped except on terms acceptable to the officials who manage them.

GILBERT WALKER

University of Birmingham.

THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT [1]

BY August 10, 1947, the International Bank for Reconstruction and Development had granted two loans—one of $250 million to France, and one of $195 million to Holland (of which $4 million was subsequently made available in Swiss francs). During the year covered by the Third Annual Report, the process of making loans in Europe continued until it was interrupted by the launching of the European Recovery Programme and $40 million was lent to Denmark, $12 million to Luxembourg (partly in the form of Belgian francs) and $12 million to four Dutch shipping companies (the loans being guaranteed by the Dutch Government)—partially in recognition of the "substantial progress in the reconstruction of the Dutch economy." In addition, loans of $16 million were promised for Chile, on condition of a guarantee being forthcoming from the Chilean Government. And (in September, 1948) the Bank had under consideration projects in more than twenty countries and had sent technical missions to thirteen countries.

Further loans in Europe had been "precluded primarily because of the uncertainties which have existed, first with regard to the content of the European Recovery Program and later with respect to the manner in which loans by the Bank could best be brought into harmony with that program." But "the Bank proposes to consult with the OEEC and ECA with respect to prospective loans to any of the participating countries. The Bank will also keep itself continually informed with respect to the activities and policies of the OEEC and ECA."

"So far as concerns other areas of the world, large-scale Bank financing has not yet been possible, due largely to the length of time required for the preparation of specific projects up to the point when they are ready for financing. In part, too, it is due to the need in some cases for the borrowing country to take steps to rectify unsound economic and financial conditions which affect its credit."

This Report has to be read against the background of the Bretton Woods Articles of Agreement, which provided that among the purposes of the Bank were "to assist in the reconstruction and development of territories of members . . . including the

[1] *International Bank for Reconstruction and Development. Third Annual Report*, 1947–48. (Washington, D.C.: International Bank, 1948. 10½″. Pp. 48.)

restoration of economies destroyed or disrupted by war, the reconversion of productive facilities to peace-time needs . . ."; and "to assist in bringing about a smooth transition from a war-time to a peacetime economy." It is sad also to recall the opening speech at the first meeting of the Second Commission of the Bank in July 1944, in which Lord Keynes said :

> "It is likely, in my judgment, that the field of reconstruction from the consequences of war will mainly occupy the proposed Bank in its early days. But . . . there is a second primary duty laid upon it, namely, to develop the resources and productive capacity of the world . . . and so to order its operations as to promote and maintain equilibrium in the international balances of payments of all member countries." (*The New Economics*, edited by S. E. Harris, p. 397.)

One of the difficulties to which attention is drawn is "the fact that the Bank has not been able to obtain consent to the use of larger amounts of non-dollar capital, or to the sale of non-dollar bonds in markets outside the United States." However, this is not a review of the Bank but of its Third Annual Report. One of the few constructive suggestions which it makes is the remarkably unpromising one that countries might be asked to invest part of their foreign-exchange reserves in the Bank's dollar securities. One would have preferred to read of some outcome to Lord Keynes' emphasis, in the same speech of 1944, on "the underlying conception of a joint and several guarantee of all the member countries throughout the world, in virtue of which they share the risks of projects of common interest and advantage even when they cannot themselves provide the lump sum originally required, thus separating the carrying of risk from the provision of funds"—the risk premium being one which "reckoned on strict commercial principles may be beyond the capacity of an impoverished borrower to meet." Instead we are reminded, in unimaginative and apologetic fashion, of the economic and political instability which prevails in many countries and of the need in the case of some of them to re-establish credit before the repayment prospects of a Bank loan can be regarded as sufficient. Also the Bank's resources are limited (some discussion of the nature of such limitation would have been useful). These considerations perhaps explain the statement that :

> "It seems clear that the real measure of the Bank's effectiveness will be, not so much the number or amount of its loans and guarantees, significant as they may be, but rather its success in influencing attitudes—in promoting a

realistic, constructive approach to development problems on the part of its members and in fostering a greater degree of confidence among investors."

The Bank should be well equipped for such a role. Inclusive of provision for taxes and of contributions to staff benefits, salaries and wages in the year ending June 30, 1948, came to $2,804,107 (on August 31, 1948, the staff consisted of 435 persons). In addition, the cost of travel was $447,981. The budget for the current year indicates yet higher figures. Until some of the work done in the Bank is published (in the real sense of the word, *i.e.*, so as to be available through booksellers) it is difficult to assess what kind of return the world is getting on its outlay. (The Administrative Budget provides for " books and printing " in the year ending June 30, 1949, only $95,800, representing a negligible increase on the previous year.) But possibly the staff are, and will remain, fully occupied in representing the Bank at the numerous meetings (one is not surprised to read that " this has imposed a severe strain ") of other international bodies which are concerned with influencing the attitude on economic questions of their members, and in maintaining close liaison with such bodies. Whether the results achieved by the Bank, and by the other bodies engaged on regional and international economic questions, justify the absorption of so many eminent and promising economists is a question of the utmost importance on which a Report of this kind cannot be expected to throw much light.

R. F. KAHN

King's College,
Cambridge.

OBITUARY

WESLEY C. MITCHELL (1874–1948)

WITH the passing of Wesley Clair Mitchell, the economics profession has lost a pioneer who established quantitative research on an enduring foundation and who broadened the horizon of economics in general. Wesley C. Mitchell was born in Rushville, Illinois, in 1874, the second of seven children. His grandparents were farmers in Maine and western New York. His father was a physician, and served in the Medical Corps of the Union Army during the Civil War, achieving the rank of brevet-colonel. Wounds he received in that conflict forced him eventually to give up his medical practice and turn to fruit-farming. He finally settled in Decatur, Illinois, and all the children helped with the farm-work. But young Mitchell, as the eldest son, had special responsibilities, and thus came to know the problems of farming at first hand. Thanks in good part to the interest of a great-uncle who lived with the family, and who was a typical Yankee jack-of-all-trades, he acquired a facility in the manual arts that proved an effective outlet whenever he drove himself beyond the limits of fruitful activity in the intellectual realm.

By the time Mitchell was finishing his junior year in the local high school in 1891, and the family was seriously considering the college possibilities, it became known that a fine university would open in nearby Chicago the following year. Not only would it provide adequate training but it was also close enough to home for Mitchell to help on the farm during vacation periods. Inquiries disclosed that the senior year at the local high school would not prepare him for the entrance requirements, so he spent that year studying by himself, and with the help of a short period at a " coaching academy " in Chicago, he was able to enter the first class of the University of Chicago. This proved to be an excellent opportunity, for during Mitchell's years at Chicago, the university harboured a veritable galaxy of pioneering spirits. There were, to name but a few, Thorstein Veblen in economics, W. I. Thomas in sociology, John Dewey and George H. Mead in philosophy, A. A. Michelson and R. A. Millikan in physics and Jacques Loeb in physiology.

Mitchell had planned to specialise in the classics, because in the process of preparing for the entrance examinations he had been moved by the poetry of Horace. He soon shifted to economics and philosophy, but his love of satire remained an element in his work, and had not a little to do with the failure of some of his over-serious readers to appreciate the subtlety of his views. In the field of economics he was inspired largely by Veblen—another satirist, incidentally—and J. Laurence Laughlin, the " head professor " of political economy; in philosophy he was attracted to Dewey and to Mead, who worked along Dewey's lines. In writing of the influence of that " disturbing genius " Veblen, Mitchell said that " no other such emancipator of the mind from the subtle tyranny of circumstances has been known in social science and no other such enlarger of the realm of inquiry." And of Dewey, he said, " no less effectively than Veblen, though with a different emphasis, Dewey helped an economist to drag the psychological preconceptions lurking behind theories of value and distribution into consciousness, and to see how they stood in the light of current knowledge."

The influence of Laughlin was more complex. Of him Mitchell wrote that he " revered the body of economic doctrine expounded by Mill and revised by Cairnes." Laughlin laid down the " truths " of economics in such dogmatic manner, that he aroused the critical faculties of the abler students. The saying went that they got the " truth from Laughlin and had it explained away by Veblen." But one positive aspect of Laughlin's work deeply colored Mitchell's thinking; Laughlin broke with orthodoxy on the quantity theory of money. To understand this we must look back to the great public issue of Mitchell's college years: the controversy over " free silver " and the demand for the return to the bimetallic standard. The free-silver men contended that the declining trend of prices since 1873 was caused by the Coinage Act of that year which had demonetised silver, and thus resulted in depression and unemployment. Their argument was avowedly based on a simple version of the quantity theory of money: the supply of " standard money " determined the level of prices, and consequently the Coinage Act, or " the crime of 1873," which caused a reduction of " standard money " by preventing the use of silver as money in the face of an ever-increasing volume of trade, was responsible for the decline of prices; a return to bimetallism would restore prices to a " stable " level. The contest reached its climax in the presidential campaign of 1896.

Laughlin had begun his academic career in the middle seventies, just about the time this issue came to the fore, and much of his energies went into attacking free silver. In the nineties he flatly denied the validity of the quantity theory. The theory that prices are determined by the quantity of money, he felt, had no deductive, and certainly no inductive foundation, and he encouraged his abler graduate students to investigate the theory. But while Laughlin contended that the "heresy" of free silver must be outlawed, he succeeded in getting his students to question what Mitchell later termed the simple "mechanical view" in which the quantity theory was presented, and to emphasise the business considerations that enter into determining prices.

Mitchell's keen interest in monetary problems pleased Laughlin, and upon his graduation in 1896, Laughlin helped him to obtain fellowships for the next three years. Mitchell spent the second of these years abroad, first studying with Johannes Conrad at Halle, and then with Carl Menger at Vienna. In 1899 he received the degree of Doctor of Philosophy *summa cum laude*. After a year with the United States Census Office, he returned to the University of Chicago as a teacher.

Meanwhile, since 1896 Mitchell had been working primarily on a subject which had been suggested by Laughlin for his doctoral dissertation; namely, the history of the greenbacks At the time of its origin this topic was far from merely an academic one. The greenbacks were the inconvertible paper money which the United States Government issued during the Civil War, and only after considerable controversy was legislation passed providing for their convertibility into specie in 1879. But "greenbackers" continued to have a strong following, and they rested their case on much the same grounds as the "free-silver" forces. There was no little feeling in 1896 that agitation for greenbacks would be intensified, whether "free silver" won or lost.

Mitchell's study which had begun as a short dissertation stretched into a prolonged inquiry, for he found that the debate, which had been carried on in good part on a level of irresponsible reasoning and loose fact-gathering, demanded careful statistical treatment. Instead of assembling the theoretical arguments, he began to gather all "the well-authenticated statistical material on the subject" and to combine it with "speculative analysis." Seven years after he had begun his work, he published the first instalment, covering merely the war years, under the

title, *A History of the Greenbacks, with Special Reference to the Economic Consequences of Their Issue: 1862–65* (1903). The guiding theoretical point of the volume was that while the existing system of money payments—he later called it the system of prices—constituted an organic whole, changes or disturbances in one area did not immediately cause equivalent changes or adjustments in other areas. Not only did he find striking fluctuations in the broad categories of wages, interest, rent and profits, but also in their subdivisions. Mitchell felt, however, that the topic had more ramifications than he had originally investigated. He therefore prepared statistical apparatus for a more thorough-going analysis for the entire period from 1862 to 1879, and this appeared as *Gold, Prices, and Wages Under the Greenback Standard* (1908). The two volumes together are to this day the most comprehensive study of the workings and the "economic disturbances" of the greenback standard in the United States.

Meanwhile, as the political struggle over and general interest in monetary standards waned, Mitchell began to see the problem in a larger way. He was now passing through his most germinal years. There was a sharp change of scene—this was the period that he spent in the Far West at the University of California—from 1903 to 1912. He launched upon a comprehensive study of the economic system which he called first, "The Theory of Prices;" then, "The System of Prices," and finally, "The Money Economy." He was inspired by the example of Werner Sombart's impressive *Der moderne Kapitalismus*, Georg Simmel's *Philosophie des Geldes* and, of course, Veblen's famous paper of 1900, "Industrial and Pecuniary Employments." Whereas in his greenback studies he had experienced a quick progression from abstract doctrine to statistical analysis, there had now occurred a slower and more ripening progression from a monetary study to the study of the whole economic system in all its varied phases.

Mitchell read voluminously over a wide field, ranging from the latest studies in anthropology to the works of the as yet little-known Knut Wicksell; he prepared outlines and preliminary drafts of chapters that ran into hundreds of pages. He was especially interested in the contributions of compilers of index numbers, and the writers on crises and depressions. Index numbers, he stated in a draft, provided relatively full and exact information on the character of price fluctuations, and rendered many ideas more precise. They revealed the differences and

similarities of the price changes of different articles in the same market and of the same article in different markets; the relations between wholesale and retail prices, as well as the relations between the prices of raw materials and manufactured articles. Moreover, index numbers helped to determine the extent of the influence of "cycles of business activity" on prices as against that of changes in the production of precious metals. Again, index numbers could reveal better than arm-chair speculation, the correspondence in the movement of the price-level in different countries. Finally, the price-tables helped, at least in part, to show the interrelations of the various parts of the price system—the influences of fluctuations in the price of one good on that of other goods.

As for writers on crises and depressions, Mitchell pointed out that like the compilers of index numbers, they had the advantage of starting with a concrete problem.

> "To them the price movements are one phase of a general dislocation of economic relations, intimately connected both as to cause and consequence with such other phenomena as changes in investment of capital, business failures, shrinkage of production, lack of employment, variations in the reserves of banks, etc. They are concerned moreover with those phenomena as parts of a process in which all the inter-related facts develop together. These facts lend to their discussions a realistic air. . . . Their explanations, so far as they succeed in giving them, are explanations of economic experience, not . . . of what would happen under unreal hypothetical conditions."

Already by 1905 Mitchell was giving a course on the subject, entitled "Economic Crises and Depressions" which dealt with "recurrent fluctuations of business activity."

The broad study occupied Mitchell for approximately five years, while he was also completing the second volume on greenbacks. Its aim, he wrote in an outline dated March 1908, was to work out the logic and technique of the money economy, to show how it affected men's actions and habits of thought, how they reacted against it, and how the facts developed in the inquiry were explained by current economic theory. Its defects, he felt, would be lack of adequate statistical and historical data, and the generality of the discussion. "A point of view has been developed speculatively: scientific method requires that it be tested by far more extended research. That, however, is a work for many men."

From this groundwork sprang practically all of Mitchell's

later products. While that inquiry never appeared as an integrated whole, various parts were published. From the draft chapter, " The Price System and the Consumption of Wealth," which referred to the " pathetic plight of the consumer as a judge of goods," came that delightful essay, " The Backward Art of Spending Money " (1912),[1] with its sly questioning of the " orthodox " view of the role of the consumer. From other parts came " The Role of Money in Economic Theory " (1916), a critique of the neglect of the creative importance of money by traditional economics. By far the largest segment was woven into *Business Cycles* (1913).

As America experienced another crisis in 1907, Mitchell's interest in cycles naturally deepened, at the same time that his transfer for a year in 1908 to Harvard created a break that was favorable to a change of perspective. On his return to California in 1909, he initiated a detailed statistical inquiry, grounded on simple techniques that furnished the basis of *Business Cycles*. The massive volume consisted of three parts. " The Problem and Its Setting " comprised the leading current theories of business cycles, a sketch of the organisation of the money economy and a year-by-year record digested from leading financial journals of cyclical fluctuations in the United States, England, France and Germany from 1890 to 1911; the second part contained statistical data and analyses. Woven out of the observations supplied by these two parts was the theoretical portion. This final part, " The Rhythm of Business Activity " presented a " realistic account of what goes on within a business cycle." His theory was that business cycles were not " natural " nor were they the outcome of strictly industrial forces; rather they were a product of the peculiar institutions and habits associated with the money economy.

His primal aim in the famous treatise was to show how the " technical exigencies " of the money economy subject economic activity to continual alternations of expansion and contraction. " The theory of business cycles presented . . . is a descriptive analysis of the process of cumulative change by which a revival of activity develops into intense prosperity, by which this prosperity engenders a crisis, by which crisis turns into a depression, and by which depression . . . finally leads to . . . a revival of activity." This analysis he rested primarily upon an extensive

[1] This essay and subsequent articles referred to below have been reprinted in *The Backward Art of Spending Money and Other Essays* (New York and London: McGraw-Hill, 1937).

detailed statistical inquiry. He chose this approach because the "problem is essentially quantitative in character, involving as it does the relative importance of divers forces which are themselves the net resultants of innumerable business decisions." For guidance in "the selection of statistical data, the methods of presentation, and the co-ordination of the results" he used in large part "ideas borrowed from theoretical writers or from financial journals." But all the statistical tables and the "borrowed ideas were fitted into a framework provided by a study of the economic organisation of today, which showed that the industrial process of making, and the commercial process of distributing goods are thoroughly subordinated to the business process of making money." The whole discussion consequently centered about the prospect of profits, or, in a period of acute strain, the avoidance of bankruptcy. The most significant factors are the prices constituting business receipts and expenses, the "volume of sales effected at the prevailing margins of profit, the need of having currency to make payments and of obtaining loans in adequate amount from banks and investors." But knowing the important factors, and the fluctuations each undergoes, is not enough. The difficult part lay in following the "interactions of these factors through all the permutations that brighten or darken the prospects of profits and make easy or difficult the maintenance of solvency." So conceived, Mitchell's study was constantly subjected to the test of conformity to actual behavior of the money economy and his work constantly open to revision as more data and fruitful hypotheses appeared.[1]

The book was epoch making. It not only showed the tremendous possibilities of detailed quantitative study but it also led to a conception of the economic order in terms of the changing phases of the business cycle. It increasingly forced men to appreciate the mighty though unpleasant reality of the ebb and flow of business as an "activity." Soon, the literature of economics would speak of "business cycles," not of "commercial crises." Perhaps one of its greatest contributions lay in the fact that the book was the first convincing attempt to bridge the gap between the belief in general over-production by the business community and the denial of that possibility by the main tradition in economics. But to Mitchell this treatise was only one part of his self-imposed task to study the money economy.

[1] As Professor Walter W. Stewart, one time Economic Adviser to the Bank of England, pointed out in a letter to the writer: Mitchell's procedure of "analytical narrative, tested quantitatively" was a marked advance towards the ideal of combining statistics with history.

Other parts of the design were developed after another shift in his location.

A year after resigning from the University of California in 1912, Mitchell joined Columbia University. It was felt that as a "man interested in theory and equipped to attack theoretical problems in a truly scientific spirit, and with the aid of the broadest training here and abroad," he was the long-sought successor to John Bates Clark. Mitchell's one course, "Types of Economic Theory," excellently fitted into his research program. He had long planned that a book on that subject should follow *Business Cycles*. A preliminary outline for the projected treatise began by pointing out the "need of social economic reform to the end of securing fuller opportunity for development to larger numbers." The great need, he wrote, was knowledge—knowledge comparable in certainty to that which was the basis for industrial advance. The book would attempt to characterise and criticise current theories; it would analyse the role played by instincts and institutions in the development and modification of the existing order, describe the means of studying them and applying that knowledge.

When Mitchell first came to Columbia, he had planned to devote himself to "types of economic theory" in the sense of "contemporary," but as he progressed with his work he became increasingly impressed with the need for an exhaustive study of the school from which the dominant stream of economic thought traced its origin. Thus he began a detailed investigation of the classical school in 1916. But he intended to print this separately as an introduction to the originally projected book. He spent a number of years on that particular manuscript, but after he completed it, with his sense of careful workmanship, he laid it aside in the expectation of polishing it up at some more convenient time. His article, "Bentham's Felicific Calculus," was published from that manuscript in 1918, and had much to do with the reconsideration of the role of Bentham not only in economics but also in other social sciences. At a much later date, he drew from that manuscript his equally revealing "Postulates and Preconceptions of Ricardian Economics" (1929).

In that early period he continued to publish pioneering articles on index numbers of security prices in the *Journal of Political Economy*. And his often reprinted *The Making and Using of Index Numbers* (1915), issued by the United States Bureau of Labor Statistics, is still a basic requisite for students of economic statistics.

Investigations for his main book were delayed by a call to public service. During World War I, he headed the Price Section of the Division of Planning and Statistics of the War Industries Board. Under his guidance a number of bulletins were prepared which supplied a large part of the information available on war-time prices and price control.

After completing his tasks for the Government in 1919, Mitchell joined his old teacher Veblen and such other leaders as James Harvey Robinson and Charles A. Beard to establish the New School for Social Research in New York City. Three years later, in 1922, at the urgent request of his former colleagues, he returned to Columbia. His course, "Business Cycles" became the training ground of an eminent group of investigators in quantitative research; his course, "Current Types of Economic Theory," enriched by his work on the classical school, appealed, both in scope and content, to the abler students not only in economics but also in the other social sciences at the University.

Meanwhile in his New School period, he was chiefly instrumental in organising the National Bureau of Economic Research. Its object was to "conduct quantitative investigations into subjects that affect public welfare" with the aim of ascertaining "fundamental facts within its field as accurately as may be, and to make its findings widely known." The first study issued by the Bureau was in the basic field of national income. Mitchell collaborated with Frederick R. Macaulay, Oswald W. Knauth, and Willford I. King to produce *Income in the United States, Its Amount and Distribution: 1909–1919*. The aim was to "determine whether the national income is adequate to provide a decent living for all persons, whether this income is increasing as rapidly as the population, and whether its distribution among individuals is growing more or less unequal, and to sift the divergencies among the current estimates."

Hardly was this completed in 1921 than Mitchell found himself and the Bureau, by the force of circumstances, moving toward a fresh attack on business cycles. The United States was again in a depression. He not only used new materials but also he now had the advantages of the knowledge that the Bureau staff had gained in studying the fluctuations of the national income. He conducted this new inquiry in much the same way as the early one, but now there were complete volumes, at long intervals, to replace the original parts. Not until 1927 was the first volume ready, *Business Cycles: The Problem and Its Setting*. It was much richer than the first part of the earlier volume.

Where originally the business annals covered four countries and a period of twenty-one years, they now embraced seventeen countries, and the material went as far back, in the case of England and the United States, as 1790. It was further enriched by including from the earlier drafts of the "Money Economy," an illuminating account of "The Evolution of Business Economy." Nineteen years later, in collaboration with Arthur F. Burns, his successor as director of research of the Bureau, he published a portion of the second part, *Measuring Business Cycles*, which had the advantage of greatly improved techniques. Mitchell was then seventy-two years old but he kept on with the plan of completing the theoretical part, "The Rhythm of Business Activity."

The strain on Mitchell was heavy. Thus in 1941, while unwilling to allow the entire original volume to be reprinted, he gave his consent for the theoretical part, on the ground that he had "no assurance that my working capacity will last long enough to let me be in at the finish." The task had already become the work of many men, as he had long envisaged.

Mitchell responded time and again to calls from the Government to serve on committees that would increase and extend objective knowledge. The National Bureau prepared for committees growing out of President Harding's 1921 Conference on Unemployment, those comprehensive surveys *Business Cycles and Unemployment* (1923) and *Recent Economic Changes* (1929); then in 1929 President Hoover appointed Mitchell chairman of a committee to study social trends in the United States, and the outcome was *Recent Social Trends* (1933). During President Franklin D. Roosevelt's regime, he was appointed in 1933 a member of the National Planning Board of the Federal Emergency Administration of Public Works, and for the next two years he served on the National Resources Board.

For his contributions to the advance of knowledge, Mitchell received high honors. He was awarded honorary degrees from the University of Paris and from leading universities in the United States. He was chosen president of the Econometric Society, the American Statistical Association and the American Economic Association; in 1938 he was president of the American Association for the Advancement of Science, an office held only once before by a social scientist. He was the first recipient, in 1947, of the American Economic Association's Francis A. Walker Medal, which was to be awarded at intervals of no less than five years to a "living American economist who has in the course of his life made a contribution of the highest distinction

to economics." He was also an honorary fellow of the Royal Statistical Society, and served as George Eastman Visiting Professor at Oxford in 1930–31. The pleasure of this sojourn was enhanced by his appointment as a Fellow of Adam Smith's old college, Balliol.

Mitchell's constant concern was the increase and diffusion of objective knowledge in general, and quantitative research in particular. His increasing emphasis on statistical research was the outgrowth of long and painful experiences, beginning with the period of the free-silver controversy. He had been deeply impressed with the lack of anything resembling adequate knowledge for the great economic tasks during World War I. The criticisms of statistical inquiry, generally phrased in the form of limitations of statistical research, left him cold. He himself had used those criticisms in his early work when in the absence of data he often fell back simply on "qualitative analysis," but he soon felt that such criticisms were used primarily to avoid the hard labor to obtain the data. In the same way, he discounted heavily the dependability of traditional and inherited "wisdom." "By this I mean," he wrote, "that I don't believe that accumulated experience over many years is so safe a guide in managing affairs as objective knowledge, when the latter can be attained. . . . What I really have come to think is that man's best prospect of improving his lot is knowledge resting upon analysis of human behavior as we can observe its manifestations objectively in large groups of people."

Not least of his gifts was a unique talent for securing co-operative effort, whether in teaching, research or government service. He was magnanimous in sharing credit for intellectual endeavors. And he preferred to attribute error to ignorance rather than to malevolence or self-interest. He had a strong congenital faith in human decency. He was chary in imputing bad faith, and had an unusual capacity to meet the minds, and win the agreement, of businessmen and labor leaders, of statesmen and scholars. This not only gained a wider appreciation of his views but also helped him to organise large and co-operative efforts of research. In his spiritual and material encouragement to aspiring scholars of a variety of viewpoints, in his steadfast adherence to the cause of free inquiry and objective standards, and in his tenacity of purpose in pushing investigations to their roots, Wesley C. Mitchell embodied the highest ideals of the universal republic of learning.

JOSEPH DORFMAN

Columbia University.

Wesley Mitchell in Oxford

It is appropriate in these columns to add a brief notice on Wesley Mitchell's year in Oxford as Eastman Visiting Professor. This was a notable episode. His public lectures for undergraduates were, it is true, not altogether successful. His tempo was too slow, and he greatly underrated the maturity and intelligence of the typical Oxford undergraduate. His subject also was ill-chosen. He opened his principal course with an analysis of Jevons's Utilitarianism and its relation to the proper presuppositions of economic study. This was a favourite theme for exhaustive exploration by a large group of professional philosophers in Oxford, clever, subtle and mellow minds, who published little, but were past masters in the lecture room. It was an error of judgment for Mitchell to enter into competition with such men on such a well-worn topic. It is to be feared that most undergraduates deserted his course before he had completed his treatment of Jevons. But this was a trivial matter. His important work lay in a different sphere.

Economics had been a subject of serious study in Oxford for only eight years. A team of some twelve teachers had been gradually collected in the course of that period, all, save for the professor, very young men. Over-taxed with teaching, in accordance with the Oxford tradition, living and working in separate colleges, and lacking any central institution, they tended to be isolated units. Mitchell at once understood their problem, and with his " unique talent for securing co-operative effort," he did much to bring them together into a cohesive group. Sub-faculty meetings there had been, to conduct business, and economic discussion clubs, in which a member would choose his own subject to raise for discussion. Mitchell arranged that they should meet each week under his auspices and carry forward some central theme. They should get to know each other's problems and think in terms of co-operative work and mutual assistance.

It is idle to indulge in the historical hypothetical; this development might have occurred had Mitchell never come. The fact remains that regular meetings to discuss some single theme dated from his visit, were organised by him and continued to be a characteristic feature of Oxford economics until 1939. This organisation of the economists made their own sense of the need for a central institution more urgent, and enabled them to press

this upon the University authorities and the Rockefeller Foundation. The whole group took an active interest in the inception of the Institute of Statistics, some working in it, all watching its growth closely. Soon afterwards the technique of collective interviews of business men was developed, *Oxford Economic Papers* was initiated, and the collective work of Oxford economists began to attract attention.

In the ideological sphere also Mitchell may have had some influence. Opinions will differ about its importance, but one at least deems it substantial. Oxford was not likely to be won over to Mitchell's very austere form of economic empiricism. The strong philosophical background there created the opposite danger of an extremely theoretical approach, with stiff controversies on methodological or terminological matters. This danger was averted. The Oxford group watched the development of Keynes's ideas with most sympathetic interest, but did not feel any impulse to engage in party warfare about them. Mitchell's influence may at least have made some contribution to the keen interest which was characteristic of Oxford economics in the 'thirties, in empirical verification and field inquiry.

Be that as it may, there is no doubt that the personality of Mitchell, with his objectivity and cautious judgment, made a marked impression. There was a charming relation between this experienced and venerable senior and the group of young Oxford teachers, most of them in their twenties. They cherished the fondest memories of him.

R. F. H.

CURRENT TOPICS

THE Annual Meeting of the Royal Economic Society was held at the London School of Economics on Thursday, June 23, 1949. Professor D. H. Robertson was re-elected President of the Society. Sir Henry Clay was elected Vice-President. Professor W. A. Lewis was elected to fill a vacancy on the Council. After the formal business, the President briefly addressed the Society on the subject " On Sticking to One's Last." This was followed by a discussion.

The Secretary reported on the membership and finances of the Society as follows :

	1948	1947	1946	1939	1914
New Fellows and Library Members elected	674	493	474	490	50
Fellows lost by death, resignation, or default	429	397	298	496	33
Number of Fellows and Library Members on Dec. 31st . .	5,294	5,049	4,953	4,572	694
Total Compounders included in above total	1,979	1,953	1,860	1,155	159
Surplus of Income over Expenditure, together with receipts from Compounders . . .	£3,056	2,511	2,505	329	278

The Secretary also reported that the Royal Economic Society had been invited to adhere to a new International Economic Association that it was proposed to establish. The Council had had the matter under close consideration for some months past and had been represented at the discussions of the project in Paris. It had now decided that, subject to certain conditions, the adherence of the Royal Economic Society should be approved.

By the death of Sir Frederick Ogilvie, Master of Jesus College, Oxford, the Royal Economic Society has lost a valuable member of its Council. We shall hope to publish an obituary notice in a forthcoming issue of the ECONOMIC JOURNAL.

Mr. E. A. G. Robinson, Secretary of the Royal Economic Society, and Mrs. Joan Robinson have both been appointed to Readerships in Economics in the University of Cambridge.

Mr. M. G. Kendall has been appointed to a Chair in Statistics tenable at the London School of Economics.

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

VOL. CXI, PART III, 1948. *The Validity of Comparative Experiments:* F. J. ANSCOMBE. *The Teaching of Statistics:* J. WISHART. *Medical Statistics:* M. GREENWOOD.

Oxford Economic Papers.

VOL. I, NO. 2, JUNE 1949. *The Function of Exchange Rates:* R. G. HAWTREY. *A Comment by Sir Hubert Henderson. Profits in British Industry from 1924 to 1935:* R. HOPE. *Some Thoughts on the Nature of Interest:* E. V. MORGAN. *Static Models and Current Problems in International Economics:* T. Balogh. *The Theory of Comparative Costs Reconsidered:* G. M. MEIER. *Oligopoly and Imperfect Competition:* E. G. DOWDELL. *The Foundations of Welfare Economics:* I. M. D. LITTLE. *The Origins of Industrial Peace: the Case of the British Boot and Shoe Industry:* ELIZABETH BRUNNER. *A Note on Current Marxist Definitions of the National Income:* D. SEERS. *A Note on Price and Quality:* N. H. LEYLAND.

Economica.

FEBRUARY 1949. *Prospects of Labour:* E. H. PHELPS BROWN. *The Valuation of the Social Income:* I. M. D. LITTLE. *Economics of the Wheat Agreement:* H. TYSZYNSKI. *The Propagation of Ricardian Economics in England:* S. G. CHECKLAND. *The Distribution of Earned and Investment Incomes in the United Kingdom:* E. C. RHODES.

MAY 1949. *The Economist in the Twentieth Century:* L. ROBBINS. *Mr. Harrod's Dynamic Theory:* J. R. HICKS. *The German Currency Reform and the Revival of the German Economy:* F. A. LUTZ. *The Opinions of Horsley Palmer:* J. K. HORSEFIELD. *Relaying the Foundations:* W. J. BAUMOL.

The Manchester School of Economic and Social Studies.

VOL. XVII, NO. 1, JANUARY 1949. *Economic Change in the North-West:* F. V. MEYER. *The Restriction of Foreign Trade:* A. HENDERSON. *Some Results of the Distribution of Industry Act, 1945:* J. SYKES. *Retail Sales per Employee:* J. A. HOUGH. *Internal Migration in Victorian England:* A. K. CAIRNCROSS. *A Shipyard from Within:* R. S. STOKES. *Statistics relating to the North-West.*

VOL. XVII, NO. 2, MAY 1949. *The Economic Survey for 1949:* E. DEVONS. *The Development Areas:* J. SYKES. *An Agricultural Production Function for the United Kingdom, 1924 to 1947:* K. S. LOMAX. *Federalism and Finance:* A. H. BIRCH. *The Concept of a Dollar Shortage:* T. BALOGH. *The Economic Recovery of Belgium:* R. PÂQUET. *The British Monopolies Act:* W. A. LEWIS. *Statistics relating to the North-West.*

The Political Quarterly.

APRIL–JUNE 1949. *Record of the Labour Government in the Social Services:* BARBARA WOOTTON. *The Labour Party's Record in Foreign Policy:* W. N. EWER. *Human Rights:* B. A. WORTLEY. *"Apartheid"—South Africa's New Native Policy:* I. S. LLOYD. *The Silent Revolution:* M. K. ADLER. *A Problem in Colonial Government:* MARJORIE NICHOLSON. *Recent French Books:* J. P. MAYER.

Population Studies.

MARCH 1949. *European Migration Potential and Prospects:* J. ISAAC. *Age at Marriage and Marital Fertility:* COLIN CLARK. *The Canadian*

Sample for Labour Force and other Population Data : N. KEYFITZ and H. L. ROBINSON. *Using the* Pao *as the Primary Sampling Unit. Some notes and reflections on the possibilities of a census of China by sampling :* CHIH-ANG CHIANG. *Summary Indices of the Age Distribution of a Population :* H. HYRENIUS. *A Note on Standardized Rates :* B. D. KARPINOS and J. B. CHASSAN.

The Sociological Review.

VOL. XXXVIII, SECTION 1, 1946. *School and Society (Addresses given at the Summer Conference organised by the Institute of Sociology, July–August, 1945 : edited by Miss D. M. E. Dymes). The Challenge :* H. C. DENT. *The Vocational Content of the Social Education of Teachers :* CATHERINE FLETCHER. *Art and Handicrafts in School and Society. Music as a Medium for the Synthesis of School and Society :* R. R. KIMBELL. *Literature as Medium for the Synthesis of School and Society :* J. A. LAUWERYS. *Religion in School and Society :* W. M. JONES. *The Relation between Skill, Competence, Success and the Development of Personality. What is General Knowledge? :* A. PINSENT. *Social Skills :* T. H. PEAR, K. WOOD, K. E. BARLOW, F. J. WOOD. *Rehabilitation Methods at an R.A.F. Centre :* C. J. S. O'MALLEY. *Visual Education :* O. NEURATH, C. RAWNSLEY, O. BELL. *Local Survey Courses with Army Units :* M. HARDIMAN. *The Multi-Bias School as a Social Experiment :* SIR E. GRAHAM SAVAGE. *Conclusion :* A. PINSENT.

VOL. XL, SECTION 8, 1948. *The Inheritance of Values :* K. G. COLLIER.

International Affairs.

APRIL 1949. *Trends in American Policy :* D. W. BROGAN. *The Heritage of Western Civilization :* E. L. WOODWARD. *Communism and Nationalism in South East Asia :* H. M. VLEKKE. *Economic Changes in Eastern Europe since the War :* DORREEN WARRINER. *The United Nations in a Divided World :* KATHLEEN D. COURTNEY. *The Present Outlook in the West Indies :* C. W. W. GREENIDGE. *Diplomatic Origins of the First World War :* ISABELLA M. MASSEY.

JULY 1949. *Economic Developments in Western Germany :* SIR CECIL WEIR. *Anglo-Irish Relations :* H. E. SEAN MACBRIDE. *Indonesia :* H. J. VAN MOOK. *France, England, and the Arab States :* R. MONTAGNE. *Communism and the Churches :* H. M. WADDAMS. *Social Responsibility in the Lebanon :* IRENE C. SOLTAU. *Observations on Colonial Planning :* W. E. H. STANNER.

The Eugenics Review.

APRIL 1949. *The Mixing of Races and Social Decay :* BISHOP OF BIRMINGHAM. *The Galton Laboratory : its work and aims :* L. S. PENROSE. *The Galton Lecture, 1949. Problems of Childbearing :* J. W. B. DOUGLAS.

Soviet Studies.

VOL. I, NO. 1, JUNE 1949. *From Munich to Moscow :* E. H. CARR. *Comment on Soviet Economic Statistics :* M. H. DOBB. *The Discussions on Varga's* Changes in the Economy of Capitalism (R.S.). *Zhdanov's speech to the philosophers : an essay in interpretation :* J. and M. MILLER. *The monthly* Journal of the Moscow Patriarchy; *an analytical survey of contents, 1943–47* (R.S.).

Bulletin of the Oxford University Institute of Statistics.

FEBRUARY and MARCH 1949. *Juvenile Labour Supply :* R. GODSON. *Britain, O.E.E.C. and the Restoration of a World Economy :* T. BALOGH. *Sweden's Economy, 1946–1949 :* I. OHLSSON and G. CEDERWALL. *Notes on Estimating National Income Components :* P. D. HENDERSON, D. SEERS and P. F. D. WALLIS.

APRIL 1949. *A Note on State Regulation of Farm Incomes in New Zealand :* W. ROSENBERG. *British Industrial Recovery :* D. SEERS. *The Distribution of Industry :* T. BALOGH.

London and Cambridge Economic Service.

VOL. XXVII, BULLETIN II. MAY 1949. *The Budget and Economic Policy:* F. W. PAISH AND R. C. TRESS. *British Trade Prospects:* C. F. CARTER AND A. D. ROY. *The Changed Distribution of Purchasing Power:* W. B. REDDAWAY. *Post-War Factory Building in the Development Areas and the Rest of Great Britain:* J. SYKES. *Building and Civil Engineering:* I. BOWEN. *The Index of Industrial Production:* A. ADAMS. *Finance:* F. W. PAISH. *Prices:* R. G. D. ALLEN. *Wages and Earnings:* A. L. BOWLEY. *World Commodity Survey:* C. F. CARTER. *Canada:* D. C. MACGREGOR.

The Banker.

APRIL 1949. *The "Rayner" Case:* M. MEGRAH. *Is Gold too Cheap?:* C. G. TETHER. *Disinflation without Tears. The Town and Country Planning Act:* J. MILNES HOLDEN. *Argentina's Post-War Experiments:* N. A. D. MACRAE. *Future of the Stock Exchanges. Balance of Payments of the Colonies:* A. R. CONAN.

MAY 1949. *High Taxation for Ever? Will America Change the Gold Price?:* H. BRATTER. *The Future of Lancashire Cotton.*

JUNE 1949. *Scottish Banking Expansion:* F. W. FORGE. *Europe and the Dollar. Canada's Exchange Problem:* G. S. DORRANCE. *Conditional Convertibility for Sterling?:* C. G. TETHER. *Credit Policy in the United States:* F. E. DANIELS. *Can South Africa Face Realities?:* D. FARQUHARSON. *Progress in Welsh Industry:* E. V. MORGAN.

The Bankers' Magazine.

APRIL 1949. *Precarious Balance. Bank Deposits as Trust Funds:* D. PALUSTER. *The Distaff Side:* W. RIDLEY.

MAY 1949. *Stern and Harsh. The Reparation Fiasco:* M. J. BONN. *Inflationary Potential and Prices:* E. H. STERN. *Issuing Bank Interest Certificates for Income Tax Purposes:* G. WHILLANS.

JUNE 1949. *Endorsement Unnecessary:* W. RIDLEY. *Bank Advances to Farmers:* S. G. HOOPER. *Obituary on Two Death Duties:* D. PALUSTER.

Barclays Bank Review.

MAY 1949. *The Dilemma in Public Finance. British Colonial Policy in Tropical Africa. British Invisible Exports.*

Lloyds Bank Review.

APRIL 1949. *Nationalization:* LORD BRAND. *Canada and the World Economy in the Making:* W. A. MACKINTOSH. *British Horticulture:* F. A. SECRETT.

JULY 1949. *Britain and European Recovery:* D. H. ROBERTSON. *Liberty, Equality and Full Employment:* HONOR CROOME.

The Midland Bank Review.

MAY 1949. *The Growing Importance of Government Finance. Development Areas. The Progress of De-control.*

National Provincial Bank.

MAY 1949. *Financing the Welfare State:* LORD CHERWELL. *The Property Outlook:* H. G. HODDER.

The Three Banks Review.

NO. 1, MARCH 1949. *What has Happened to the Rate of Interest?:* D. H. ROBERTSON.

NO. 2, JUNE 1949. *Developing Colonial Agriculture:* W. A. LEWIS. *British Investments in Latin America. The Royal Bank and the '45.*

Westminster Bank Review.

MAY 1949. *Labour's Part in Britain's Economic Recovery:* J. H. RICHARDSON. *Reflections on the Budget. Economic Survey, 1949. Food from the Sea. Farm Incomes, Rents and Land Values.*

Planning.

VOL. XV, NO. 296. *Can Communities be Planned?*
VOL. XV, NO. 297. *The University Student, selection and awards.*
VOL. XV, NO. 298. *U.N. and the Agencies. 1. Staffing Problems.*
VOL. XVI, NO. 299. *Housing Policy Abroad.*

Planning Outlook.

VOL. I, NO. 2. *Planning and Power:* J. FORRESTER. *The Rural Pattern:* J. W. R. ADAMS. *Value Contour Maps:* B. ANSTEY. *The Influence of Microclimate on Planning:* W. E. GRAHAM.

Progress.

SPRING 1949. *A Management Insurance Policy:* N. NICOLSON. *Human Factors in Industry:* J. R. L. ANDERSON. *The House of Atkinson. Industry's Place in the New Towns:* L. BRETT. *Rose Brothers (Gainsborough) Ltd.:* G. ROMILLY. *The Future of British Design:* B. HOLLOWOOD. *New Horizons for Management:* D. MITRANY. *Essential Oils:* MARGARET COSTA.

Town and Country Planning.

VOL. XVII, NO. 65. *The National Parks Bill. The Town and Country Planning Association:* D. DONNELLY. *Planning and Electricity Production:* A. G. H. DENT. *Outlook for the Countryside:* C. S. ORWIN. *Plan for Central and South East Scotland:* G. BELL PARKER.

Progress.

SUMMER 1949. *C = B : E:* R. CALDER. *Industry and the Film:* H. THOMAS. *Nutfall in the Solomons:* R. LEACH. *School for Management:* C. A. A. DE BOINVILLE. *British Transport at the Crossroads:* A. G. MARSDEN. *The Future of Farming in Britain:* J. A. DUNCAN.

The United Africa Company Limited Statistical and Economic Review.

NO. 3, MARCH 1949. *Produce goes to Market. Statistics. The Manilla Problem.*

Journal of the Statistical and Social Inquiry Society of Ireland.

VOL. XVIII, 1947–48. *One Hundredth and First Session. An Economic Basis for Irish Agriculture:* J. JOHNSTON. *Theories of Adjustment of the Balance of Payments under Fixed Exchanges:* B. MENTON. *Excess Demand and Investment in the United Kingdom:* B. R. WILLIAMS. *Natality in Dublin in the Years 1943, 1944 and 1945:* S. LYON.

The Canadian Journal of Economics and Political Science.

MAY 1949. *The Modern Party State:* H. McD. CLOKIE. *The Theory of Elections in Single-Member Constituencies:* D. BLACK. *The Generalized Bi-System Multiplier:* J. S. CHIPMAN. *Malthus on the High Price of Provisions:* H. G. JOHNSON.

The South African Journal of Economics.

MARCH 1949. *The Case for Increasing the Price of Gold in Terms of all Currencies:* W. J. BUSSCHAU. *A Comment:* C. S. RICHARDS. *Liquid Fuel from Coal:* H. R. RAIKES. *The Base Minerals (excluding coal) of the Union of South Africa:* E. M. LITTLE. *Basic Economese—new science or new language:* I. S. LLOYD. *The Elasticity of Committee Decisions:* D. BLACK.

The Indian Journal of Commerce.

VOL. I, NOS. 2 and 3, SEPTEMBER 1948. Special number. *Indian Banking and Currency Problems. The Future of Foreign Capital:* N. R. SARKER. *A New Approach to the Analysis of the Theory of Agricultural Indebtedness:* P. S. N. PRASAD. *Indigenous Banking in India:* V. L. D'SOUZA. *Co-operative Banking in India:* D. B. H. L. KAJI. *Land*

Mortgage Banking in India : K. K. SHARMA. *Foreign Exchange Banking in India* : B. S. AUDHOLIA. *The Financing of Foreign Trade of India* : B. N. CHATTERJI. *The Development of Marketing Finance in India* : D. S. SASTRI. *Bank Failures in India* : S. K. MURANJAN. *Banking and Currency Statistics in India* : D. V. RAJALAKSHMAN. *Banking Legislation in India* : M. L. TANNAN. *The Nationalization of Banks in India* : N. G. RANGA. *The Organization of a Bill Market in India* : P. DAS GUPTA. *Stock Exchange Reform* : K. L. GARG. *India's Sterling Loan to Britain* : SIR A. H. GHUZNAVI. *Inflation and Output* : A. K. DAS GUPTA. *India and the Dollar Problem* : L. SUNDARAM. *Post-war Tendencies in Indian Banking* : B. T. THAKUR. *Foreign Banks in India* : M. SUBEDAR. *Banking Frauds in India* : N. V. SONALKAR.

Tata Quarterly.

JANUARY 1949. *India's Balance of Trade. Economic and Financial Review.*

International Labour Review.

FEBRUARY 1949. *Housing and the Economic Crisis in Great Britain* : MARIAN BOWLEY. *Job Classification in the Netherlands* : A. N. VAN MILL. *Holidays with Pay in the Construction Industries—Labour-Management Co-operation in the Undertaking : Recent Surveys in France, the United Kingdom, the United States and Canada.*

MARCH 1949. *Manpower Problems and Prospects in Madagascar* : M. DE COPPET. *Social Legislation in Uruguay* : A. S. FREIRE. *The Guaranteed Weekly Wage in the British Metal Trades* : J. B. JEFFERYS. *Fishermen's Conditions of Employment.*

APRIL 1949. *The I.L.O. Manpower Programme. A Decade of Labour Legislation in India, 1937–1948 : I. Conditions of Labour of Refugees and Displaced Persons.*

The Quarterly Journal of Economics.

FEBRUARY 1949. *The Taft-Hartley Act* : S. H. SLICHTER. *Britain's Economic Problem* : T. BALOGH. *The Secular Trend in Monetary Velocity* : C. WARBURTON. *The Internal Organization of the Firm and Price Formation ; an illustrative case* : R. M. ALT. *The Mathematical Foundations of Economic Theory* : R. G. D. ALLEN.

The Annals of the American Academy of Political and Social Science.

MARCH 1949. *Reappraising our Immigration Policy.*

FIFTY-FIFTH ANNIVERSARY INDEX OF THE ANNALS. *Cumulative Index, 1941–1945 (Volumes 213–242).*

MAY 1949. *The Soviet Union since World War II.*

The Journal of Political Economy.

APRIL 1949. *A Survey of Contemporary Economics* : G. J. STIGLER. *Have we Underestimated Increases in Rents and Shelter Expenditures ?* : S. J. MAISEL. *The Future Locational Pattern of Iron and Steel Production in the United States* : W. ISARD and W. M. CAPRON. *Spanish Banking Schemes before 1700* : EARL J. HAMILTON. *Financial Resources of Trade-Unions* : N. BELFER. *Toward a New Theory of Monetary Sovereignty* : K. K. KURIHARA.

JUNE 1949. *Food and Agriculture in the Soviet Union, 1917–48* : M. K. BENNETT. *The* Communist Manifesto *in Sociology and Economics* : J. A. SCHUMPETER. *Communists in German Labor Organizations* : M. A. KELLY. *Socialism, Communism, and International Trade* : B. F. HOSELITZ. *Fabian Political Economy* : P. M. SWEEZY. *Soviet Production Estimates* : R. T. NICHOLS.

The Review of Economics and Statistics.

FEBRUARY 1949. *The General Motors Wage Agreement of 1948* : A. M. ROSS. *The Significance of the 1948 General Motors Agreement* : M. W. REDER. *How to Manage the National Debt* : S. E. HARRIS, L. H.

SELTZER, C. C. ABBOTT, R. A. MUSGRAVE and A. H. HANSEN. *Some Experiments in Demand Analysis :* A. R. PREST. *Devaluation and the Trade Balance :* A. O. HIRSCHMAN. *The Planning of Investments in the Soviet Union :* H. HUNTER. *Personal Income Tax Reduction in a Hypothetical Contraction :* M. I. WHITE. *The Long-Wave Depression, 1873–97 :* R. FELS.

MAY 1949. *Koopmans on the Choice of Variables to be Studied and of Methods of Measurement :* R. VINING. *A Reply :* T. C. KOOPMANS. *A Rejonder :* R. VINING. *Effect of Income Changes on the Rate of Saving :* G. KATONA. *Introduction to Various Views on the Monopoly Problem :* E. S. MASON. *Advertising Outlays under Oligopoly :* R. W. JASTRAM. *A Dynamic Aspect of the Monopoly Problem :* C. KAYSEN. *The Large Firm and its Suppliers :* M. A. ADELMAN. *The Development of Monopolistic Competition and the Monopoly Problem :* A. NICOLS. *Some Final Comments :* E. H. CHAMBERLIN. *The Optimum Wage Rate :* B. H. HIGGINS. *Some Limits to the Income Elasticity of Income Tax Yields :* W. VICKREY. *Note on "Stocks" and "Flows" in Monetary Interest Theory :* W. FELLNER and H. M. SOMERS. *Timing and Flexibility of a Public Works Program :* S. J. MAISEL. *A Note on Velocity :* H. M. OLIVER.

The American Economic Review.

JANUARY 1949. *The 1948 Directory of the American Economic Association (as of June 15, 1948).*

MARCH 1949. *Science and Ideology :* J. A. SCHUMPETER. *Bentham and J. S. Mill :* J. VINER. *Public Expenditure Policy :* P. J. STRAYER. *Federal Reserve Policy and Federal Debt :* L. V. CHANDLER. *Law and Economics of Basing Points :* J. M. CLARK. *Pricing in Monopoly and Oligopoly :* J. S. BAIN. *The State of the "New Economics" :* H. S. ELLIS. *Equilibrium of the Firm :* R. A. LESTER. *New British Law on Monopoly :* RUTH COHEN.

MAY 1949. *Papers and Proceedings of the sixty-first Annual Meeting of the American Economic Association. John Stuart Mill's* Principles : *a centenary estimate :* V. W. BLADEN. *Round Table in Commemoration of the Centenary of the Communist Manifesto : the Sociology and Economics of Class Conflict :* F. C. MILLS, T. PARSONS, D. McC. WRIGHT. *Current Research in Business Cycles :* R. A. GORDON, T. C. KOOPMANS. *Inter-regional Variations in Economic Fluctuations :* R. VINING, P. NEFF. *The Theory and Measurement of Price Expectations :* T. SCHULTZ, H. WORKING. *Liquidity and Uncertainty :* A. G. HART, J. MARSCHAK. *Input-Output Analysis and its Use in Peace and War Economies :* W. LEONTIEF. *Problems of the ITO :* MARGARET S. GORDON, J. H. FURTH, J. A. LOFTUS. *The Economic Consequences of Some Recent Antitrust Decisions :* M. A. ADELMAN, W. H. NICHOLLS, A. NICOLS. *Possibilities for a Realistic Theory of Entrepreneurship :* W. T. WASTERBROOK, G. H. EVANS. *The Economics of Preparedness for War :* A. SMITHIES, E. T. GRETHER. *Present Issues of the Latin-American Economy :* J. S. DEBEERS, F. PAZOS. *Commodity Marketing—going where ? :* J. K. GALBRAITH, A. CAHEN, A. A. HOOD, W. F. CROWDER, R. COX. *Round Table on Transportation and Public Utility Problems :* R. L. DEWEY, *Round Table on Economic Research :* H. S. ELLIS, P. T. HOMAN, E. M. HOOVER, G. W. ENSLEY.

Social Research.

MARCH 1949. *Economic Progress in Underdeveloped Countries :* H. W. SINGER. *The Conservative Party in Britain since 1945 :* E. WILLENZ. *New Trends in Social Insurance :* FRIEDA WUNDERLICH. *The West and the East :* E. HEIMANN. *Bibliography on Max Weber :* H. GERTH and HEDWIG I. GERTH. *Eschatological Thinking in Western Civilization :* A. SALOMON.

Econometrica.

APRIL 1949. *A System of Equations Explaining the United States Trade Cycle, 1921 to 1941 :* COLIN CLARK. *Identification Problems in Economic*

Model Construction : T. C. KOOPMANS. *A Scheme of International Compensation :* L. R. KLEIN. *A Scheme of International Compensation :* M. H. EKKER.

Foreign Affairs.

JANUARY 1949. *Stalin on Revolution :* HISTORICUS. *No Peace, No War :* M. BELOFF. *Rift and Realignment in World Labor :* D. DUBINSKY. *Limits of Economic Planning :* BARBARA WARD. *The Commonwealth Problem : union or alliance ? :* R. G. MENZIES. *Roots of Revolution in Latin America :* D. M. DOZER. *European Recovery : a look ahead :* SIR ARTHUR SALTER. *Benes and the Soviets :* E. TÁBORSKÝ. *Diplomacy on the Danube :* J. C. CAMPBELL.

APRIL 1949. *Regional Pacts : strong points or storm cellars ? :* H. F. ARMSTRONG. *Canada and the North Atlantic Alliance :* L. B. PEARSON. *The Illusion of World Government :* R. NIEBUHR. *France gets to her Feet :* A. GÉRAUD. *France Looks Abroad :* E. HERRIOT. *The Psychology of Canadian Nationalism :* H. MACLENNAN. *Europe after 1952 : the long-term recovery problem :* J. H. WILLIAMS. *Turkey Faces the Soviets :* N. SADAK. *The Conservative Approach to Politics :* B. DEXTER. *Must Britain Plan Mass Emigration ? :* BRINLEY THOMAS. *The Promise of the World Trade Charter :* C. WILCOX. *The Russian Population Enigma :* E. M. KULISCHER.

Industrial and Labor Relations Review.

APRIL 1949. *The Meaning of the Union Shop Elections :* J. A. HOGAN. *The Settlement of Work Jurisdictional Disputes by Governmental Agencies :* P. FISHER. *The Problem of Jurisdiction of National and State Labor Relations Boards :* J. ACKERMAN. *Tripartitism in the National War Labor Board :* R. G. DIXON.

The Journal of Economic History.

Supplement : The Tasks of Economic History. SUPPLEMENT VIII, 1948. *Inflation and Controls, Pennsylvania, 1774–1779 :* ANNE BEZANSON. *The Manipulation of Economic Unrest :* C. BRINTON. *The Centenary of Marx and Mill :* V. W. BLADEN. *The England of Marx and Mill as Reflected in Fiction :* W. O. AYDELOTTE. *Laissez Faire and State Intervention in Nineteenth-century Britain :* J. BARTLET BREBNER. *Unrest in France in 1848 :* A. L. DUNHAM. *Economic Discontent in Medieval Western Europe :* R. E. TURNER. *The Economic Background of Plato's Communism :* C. B. WELLES.

MAY 1949. *The Decline of Railroad Consolidation :* W. N. LEONARD. *Franklin as Demographer :* A. ALDRIDGE. *French Entrepreneurship and Industrial Growth in the Nineteenth Century :* D. S. LANDES.

The Southern Economic Journal.

APRIL 1949. *Recent Developments in Railroad Freight Rates :* J. P. CARTER. *The Regional Significance of the Integration Movement in the Southern Textile Industry :* S. BARKIN. *Industrialization and the South :* J. V. VAN SICKLE. *Organization and Collective Bargaining in the Local Mass Transportation Industry in the Southeast :* F. MEYERS. *The Mediation Process :* E. L. WARREN and I. BERNSTEIN. *Coordination of Federal and State Income Taxes :* E. W. REED.

Agricultural History.

JANUARY 1949. *Eastern Antecedents of the Grangers :* F. MERK. *The Farmers' Alliance and the Farmers' Union ; an American-Canadian Parallelism :* D. F. WARNER. *The Kinkaid Act and its Effects on Western Nebraska :* A. R. REYNOLDS. *Agricultural Expansion into the Semiarid Lands of the West North Central States during the First World War :* L. P. JORGENSON. *The Tree Farm Movement : its origin and development :* P. F. SHARP. *The Traffic in Seeds and Plants from England's Colonies in North America :* SARAH P. STETSON. *My Impressions of William Marshall :* G. E. FUSSELL. *The French Agricultural Questionnaire of 1814 : The Circular Letter and Becquey, The*

Model Agricultural Questionnaire, and the Reply for the Arrondissement *of Lisieux* : translated and edited by M. K. Flaningam.

Journal of Farm Economics.

Vol. XXXI, No. I, Part 1. February 1949. *Coming Readjustments in Agriculture—domestic phases* : J. D. Black. *Discussion of Professor John D. Black's Paper* : T. W. Schultz. *Coming Readjustments in Agriculture—the international phase* : D. A. Fitzgerald. *A Planner's View of Agriculture's Future* : R. G. Tugwell. *Planning under the Research and Marketing Act of 1946 ; a study in the sociology of knowledge* : E. C. Banfield. *Adaptation of the Farm Capital Structure to Uncertainty* : D. C. Horton. *A Note on Bilateral Monopoly, with special reference to seasonal agricultural labor* : A. J. Morin. *Recovering the Investment in Limestone* : D. B. Ibach.

Vol. XXXI, No. I, Part 2. February 1949. Proceedings Number. *Agriculture in a Stabilized Economy* : E. G. Nourse. *Agricultural Policy* : O. B. Jesness, R. K. Froker. *The Agricultural Act of 1948* : H. C. M. Case. *Food Supply Problems* : S. E. Johnson, C. E. Kellogg, C. Taeuber and Irene B. Taeuber, J. F. Booth, Sir Herbert Broadley, H. B. Rowe, M. H. Button, A. P. Benson, E. C. Wilcox and W. H. Ebling. *Roundtable on Fats and Oils* : O. A. Day, W. H. Jasspon, R. J. Eggert. *Roundtable on Livestock Marketing Research* : G. S. Shepherd, A. A. Dowell and G. Engelman. *Roundtable on Farm Labor* : J. D. Black, K. L. Bachman, M. Janssen, T. N. Hurd, L. S. Hardin, G. V. Haythorne. *Roundtable on Land Use Policy in the River Basins* : G. E. Young, C. M. Hardin, H. A. Steele, R. W. Harrison, *Roundtable on Cotton Marketing* : L. S. Ellis, N. A. Abrahamsen, W. E. Paulson. *Roundtable on Formula Pricing of Class I Milk under Market Orders* : T. M. Adams, W. C. Welden, S. Johnson, C. W. Pierce, R. W. Bartlett. *Roundtable on Effects of Technological Changes on Cost Reduction in Agriculture* : S. E. Johnson, G. T. Barton, H. DeGraff, J. E. Wills, C. M. Elkinton, C. R. Sayre. *Panel Discussions on Workshops* : J. Ackerman, M. Myers, M. M. Tharp, K. T. Wright. *Roundtable on Operation of the Research and Marketing Act of 1946* : N. Clark, H. C. Trelogan, R. R. Renne. *Roundtable on World Trade* : B. W. Allin, D. S. Anderson, Helen C. Farnsworth. *Roundtable on Problems of Graduate Students* : E. L. Butz, K. E. Ogren, H. G. Diesslin, S. O. Berg, C. W. Allen, C. L. Scroggs. *Roundtable on Marketing Research* : L. Spencer, R. G. Bressler. *Roundtable on Cooperation* : H. Hedges, J. K. Stern, F. Robotka, O. Ulrey, G. W. Rupple. *Roundtable on Size of Farms* : F. J. Welch, D. G. Miley, B. H. Kristjanson, LeR. W. Schaffner, K. T. Wright, S. W. Warren, H. J. Meenen. *Roundtable on Risk and Finance* : F. F. Hill, R. C. Engberg. *Roundtable on Fruit and Vegetable Marketing* : M. P. Rasmussen, H. W. Bitting, R. A. Kelly, D. E. Hathaway, M. E. Cravens, M. Abrahamsen. *Roundtable on Outlook Information* · G. Montgomery, L. C. Cunningham, L. F. Miller, D. McNeal. *Roundtable on Objective Evaluation of Soil Conservation* : L. S. Robertson, H. B. James, E. L. Sauer, C. W. Crickman, E. O. Heady. *Roundtable on Farm Taxation* : N. J. Wall, T. F. Haygood. *Extension Methods* : T. R. Timm, J. C. Bottum, L. F. Stice, Z. L. Galloway, W. Ogg. *Research Methods* : W. C. Waite, W. W. Cochrane, R. M. Walsh. *Teaching Methods* : O. R. Johnson, A. J. Brown, B. F. Alvord, C. G. McBride.

American Affairs.

Vol. XI, No. 2, April 1949. *Economics of a Classless Society* : D. McC. Wright. *Marxian View as a Point of Departure* : T. Parsons. *Design for an American Socialist State* : Sen. R. A. Taft. *Problem of Mass Unemployment* : L. C. Walker.

Studies in Business and Economics (College of Business and Public Administration, University of Maryland).

December 1948. *Income Receipts of Individuals in Maryland.*

Review of Social Economy. (*Marquette University.*)

MARCH 1949. *The Place of Economics in Liberal Arts Colleges and Seminaries :* J. F. CRONIN. *Ethics, Data for the Economist :* E. C. KILLEEN. *Economic Trends in China, and in Central and Western Europe :* E. BOUVIER. *The Catholics of the Americas and Cooperation :* A. F. RIBAS. *The Christian Obligation of Employees to Reach and Maintain Maximum Production :* M. E. SCHIRBER. *The Canadian Economy and the Encyclicals :* A. SURVEYER. *Some Economic and Ethical Considerations for Legislation Protecting the Consumer :* SISTER MARY YOLANDE. *Teachers' Cooperative Training Courses :* E. H. WINTERGALEN. *Graduate Dissertations in Economics, 1935–1947 :* P. A. FITZPATRICK.

Revue d'Économie Politique.

JANUARY–FEBRUARY 1949. *À propos de la coordination des transports. Répartition d'un objectif-production entre deux activités :* A. SAUVY. *Structure de la fortune privée en France :* F. TREVOUX. *L'or paramonétaire :* F. HERBETTE. *À propos du bilan national :* P. VENDÉ. *La révolution keynesienne :* G. TRANCART.

MARCH–APRIL 1949. *Épargne et investissements :* P. LAMBERT. *L'état actuel du système des paiements internationaux :* J. RUEFF. *La théorie psychologique de la formation des prix devant la critique contemporaine :* H. DENIS. *Les raisonnements fondamentaux de la "théorie générale" de Keynes :* A. EHRHARDT. *La conjoncture, carrefour des disciplines économiques :* A. VINCENT.

Revue de Science et de Législation Financières.

JANUARY–MARCH 1949. *La réforme fiscale :* H. LAUFENBURGER. *Nature juridique des pénalités fiscales :* M. WALINE. *La réforme monétaire dans les zones occidentales allemandes :* R. STUCKEN. *Le problème du financement des prestations agricoles :* A. MAZEROLLES. *Chroniques financières :* P. JOUANIQUE et CH. ESZLARY.

Population.

JANUARY–MARCH 1949. *L'Institut national d'études démographiques : organisation, travaux et résultats :* R. PELTIER. *Des lois dans leurs rapports avec la population :* J. DOUBLET. *Progrès technique et répartition professionnelle de la population :* A. SAUVY. *La prévision des naissances d'après les déclarations de grossesse :* P. VINCENT. *Enquête démographique en Océanie française :* C. VALENZIANI. *La situation démographique de la Grande-Bretagne. Comparaison avec celle de la France (2e partie) :* J. BOURGEOIS-PICHAT.

Statistiques et Études Financières.

MARCH 1949. *Les successions et les donations déclarées en 1947. Les contributions directes et les taxes assimilées en 1947. L'imposition des bénéfices industriels et commerciaux en France et à l'étranger. Pays Bas : le budget pour l' exercice 1949. Pologne : la réforme fiscale.*

APRIL 1949. *Situation provisoire des recettes et des dépenses de l'État pour 1949. Réflexions sur les variations de la masse monétaire. Canada : La situation économique et financière de 1946 à 1948. Etats-Unis : Le Revenu national en 1948. Italie : Le Plan Fanfani de reconstruction immobilière. Suisse : La question de la réforme des finances fédérales.*

MAY 1949. *Les comptes spéciaux du Trésor. Le recensement des automobiles du 24 septembre 1948. Grande-Bretagne : le budget de 1949–1950 et la situation économique. Italie : le budget de 1949–1950 et la situation économique. U.R.S.S. le budget fédéral de 1949.*

SUPPLEMENT FINANCES COMPARÉES. NO. 1, 1949. *L'imposition des bénéfices agricoles dans l'Union Française et à l'étranger. L'imposition des bénéfices industriels et commerciaux en France et à l'étranger. Allemagne Occidentale : la réforme fiscale de 1948. Allemagne Orientale : la réforme bancaire et monétaire de 1948. Tchécoslovaquie : la liquidation de la réforme monétaire de 1945 et la réorganisation bancaire de 1948.*

Journal de la Société de Statistique de Paris.

JANUARY–FEBRUARY 1949. *Les nombres indices :* R. ROY. *Les pourfendeurs de statistiques :* C. PENGLAOU. *Chronique des statistiques bancaires et des questions monétaires :* M. P. CAUBOUE.

MARCH–APRIL 1949. *La statistique des images :* L. AMY. *Essai sur les bases de la périodisation de l'histoire :* E. CAVAIGNAC. *Normes de la statistique, du calcul des probabilités et des erreurs de mesures :* A. PALLEZ. *Interprétation statistique des épreuves de prélèvement effectuées dans l'industrie :* M. DUMAS. *Chronique de démographie :* P. GASC.

MAY–JUNE 1949. *Contribution à la statistique des coûts de production en agriculture :* P. RAZOUS. *Les fluctuations de la construction d'habitations urbaines :* L. FLAUS.

Revue de l'Institut International de Statistique.

VOL. 16, NO. 1/4, 1948. *Les valeurs typiques d'ordre nul ou infini d'un nombre aléatoire :* M. FRÉCHET. *The analysis of market demand. An outline of methods and results :* R. STONE. *Sur la mesure du coût de la vie et du pouvoir d'achat :* A. SAUVY.

Documentation Économique.

VOL. VII, NO. 26, 1948.

VOL. VII, NO. 27, 1948.

Banque.

NOVEMBER 1948. *Équilibre budgétaire et défense du franc :* B. NOGARO. *Investissements internationaux et reconstruction européenne :* G. FAIN. *La monnaie et le crédit dans la Chine de Tchiang Kai Chek :* A. HORACE. *Une étude sur le financement des entreprises moyennes :* G. PETIT-DUTAILLIS. *La formation professionnelle bancaire :* M. SCHLOGEL.

Revue de l'Institut de Sociologie.

OCTOBER–DECEMBER 1948. *L'Évolution du potentiel démographique de la population belge de 1846–1939 :* R. OLBRECHTS. *Administration publique et Progrès technique :* H. JANNE. *Chronique du Mouvement scientifique.*

JANUARY–MARCH 1949. *Démocratie et Science politique :* D. WARNOTTE. *Chronique du Mouvement scientifique.*

Bulletin de l'Institut de Recherches Économiques et Sociales.

DECEMBER 1948. *L'analyse structurelle des variations économiques :* J. ÅKERMAN. *La transformation économique de la Belgique de 1832 à 1844 :* P. SCHOLLER. *Analyse des phénomènes logistiques à l'aide de la courbe normale intégrale :* L. DOR.

MARCH 1949. *La conjoncture économique de la Belgique :* L. H. DUPRIEZ. *Statistiques économiques courantes.*

APRIL 1949. *Sociologie et morale :* J. LECLERCQ. *Les rapport sentre la sociologie et la science économique :* J.-E. MERTENS. *Pratique religieuse et milieux :* CLAIRE LEPLAE. *Un sondage sur la culture des étudiants :* L. DE GROOTE.

JUNE 1949. *La Belgique en 1948. Les finances publiques belges en 1948 :* A. E. JANSSEN. *Les finances privées :* C. ROGER. *L'industrie charbonnière belge devant la menace des importations :* C. D. DE LESPAUL. *Le mouvement social :* A. WORONOFF. *La construction :* A. VASANNE. *L'agriculture belge en 1948 :* K. PINXTEN. *La situation économique du Congo belge :* M. MASOIN. *Prix, consommation, balance et revenue :* F. BAUDHUIN. *La métallurgie en 1948 :* R. DE STRYCKER. *Le commerce extérieur de la Belgique en 1948 et au début de 1949 :* J. JUSSIANT.

Kyklos.

VOL. II, NO. 4, 1948. *Greatness and Decline of Planned Economy in the Hellenistic World (Second Part and End) :* L. EINAUDI. *Internationale Gemeinsamkeiten und nationale Eigenarten der Finanzpolitik :* F. NEUMARK. *Stabilité monétaire et commerce international :* G. U. PAPI.

VOL. III, No. 1, 1949. *Zur Problematik vielförmiger Wirtschaftsordnungen :* A. VON MÜHLENFELS. *Unemployment and Unemployment Policy in England :* G. ÅKERMAN. *Geldtheorie und Geldpolitik. Zu dem gleichnamigen Buch von Jørgen Pedersen :* E. SCHNEIDER.

De Economist.

MARCH 1949. *Analyse van een nationaal budget :* G. STUVEL. Comparatively little attention has been paid to the form of "National Budget" suggested by the Central Plan Bureau. Fundamental is a consistent separation of the three spheres in which the economic process unfolds itself: these are the spheres of income, wealth and (consumption) goods. There follows a lengthy exposition of the form in which the national budget should be summarised. *Een nieuw werk over de omloopssnelheid van het geld :* TJ. GREIDANUS. A lengthy and detailed review of a new book on the rapidity of circulation of money written by Professor Zijlstra. Zijlstra builds on the work of Irving Fisher and Holtrop. In the course of his comments the reviewer discusses the fundamentals of monetary theory, in particular considering the "mechanic theories," the "claim-theory" and the "cash-balance theory." The point of view of the writer is to be found in his book on *The Value of Money,* published in 1932. Criticisms of that book made by Zijlstra are considered and answered. The conclusion of the writer is expressed in the following sentence: "What is the significance of the rapidity of circulation for the causal explanation and determination of the value of money? The answer must be: in a direct sense, none at all."

APRIL 1949. *Over arbeidsduur en walvaartspeil :* L. M. KOYCK. A critical valuation of the work by Dr. Verdoorn (on the length of the working day, and the relation between duration of work and productivity and the general question of welfare) noticed in the ECONOMIC JOURNAL of September 1948. The treatment of certain points would have gained in clearness and elegance if the author had applied the modern theory of Hicks: this line of thought is illustrated and developed. *De Zwitserse goud—en dollarpolitiek :* A. J. G. BRUYNIS. While practically all European countries have been struggling with an enormous gold and dollar scarcity, Switzerland on the other hand has been wrestling with a relative superfluity of gold and dollars. As a consequence of the measures taken to deal with the situation, there has emerged a free dollar market alongside the official dollar market. The writer analyses the position of Switzerland in recent years and considers the gold and dollar policy of the National Bank.

Schweizerische Zeitschrift für Volkswirtschaft und Statistik.

APRIL 1949. *Die Berechnung des schweizerischen Volkseinkommens und ihr Erkenntniswert :* U. ZWINGLI. *Der Föderalismus in der schweizerischen Verkehrspolitik :* F. WANNER. *Ein neues Werk über den volkswirtschaftlichen Gesamtprozess :* H. BÖHI. *Statistical Investigation of Capital Formation :* J. JUDIK and R. NÖTEL.

Aussenwirtschaft.

MARCH 1949. *Die Schweiz in der internationalen Wirtschaft :* H. HOMBERGER. *Die Neuordnung der gesetzlichen Grundlagen für die schweizerische Währung :* P. KELLER. *Der europäische Zahlungsplan und die Schweiz :* F. ASCHINGER.

Société de Banque Suisse.

BULLETIN No. 2, 1949. *Le problème du placement des capitaux de Suisse :* R. SPEICH.

Zeitschrift für die Gesamte Staatwissenschaft.

VOL. 105, No. 2. *Macht und Recht im Völkerleben :* W. GREWE. *Die DM-Währung :* D. HÖPKER-ASCHOFF. *Economic Structure and Planning :* T. SURANY-UNGER. *Morphologie und Katalaktik als Grundlage volkswirtschaftlicher Planung :* H. PETER. *Die Wirtschaftspolitik des Als-Ob :* L. MIKSCH. *L'Indien dans l'Économie des États andins :* L. BAUDIN. *Bäuerliches Kleineigentum in Süditalien :* F. VÖCHTING.

Weltwirtschaftliches Archiv.

BAND 62: HEFT 1. It is a real pleasure to be able to welcome the re-appearance, in its long-familiar format, of *Weltwirtschaft Archiv*, now edited by Dr. Fritz Baade, and published by Hoffmann und Campe Verlag, Hamburg. The principal Contents are as follows: *Gustav Stolper:* F. BAADE. An obituary notice. *The Concept of Elasticity in Economics:* T. SURANYI-UNGER. The early theories of elasticity developed by Cournot and Marshall were based on contemporary concepts in the field of physics. More recent ideas in that field would attach to the concept of elasticity the quantitative relationship between a primary change under some external influence and the opposing force which tends to restore the original position when the force making for the primary change is withdrawn. Such a concept has important applications to economics. *August Lösch:* ANTON ZOTTMANN. An obituary notice, followed by a list of the writings of Dr. Lösch and an unfinished manuscript by him entitled *Theorie der Währung.* In this the author works out a monetary theory based in its first part on the assumption of a single world currency; its main theme is the transfer problem; it pursues the series of movements of purchasing power and prices throughout the system. In the second part the author introduces partial currencies and gradually approaches the complications of reality; the problem of distribution in space remains dominant; the author follows up in minute detail the price-level movements and fluctuations of *Der Zins in der Kapitalistischen und Sozialistischen Wirtschaft:* G. MACKENROTH. The inter-relations between savings capital and real capital, the money rate of interest, the real rate of interest and savings, first in a modern capitalist economy and second in a socialist economy. For this purpose the author distinguishes various alternative forms of socialism and discusses the means of capital formations in them and in the Soviet economy. *Zur Liquiditatstheorie der Zinses:* E. SCHNEIDER. The author argues that Lord Keynes's liquidity theory of interest is identical with the "loanable fund theory," and the latter has a wider application. *Methoden und Möglichkeiten fur eine deutsche Auslandsmarktforschung:* C. KAPFERER. The author argues that German export trade would greatly benefit by the institution of a central office of foreign information. *Die Nationalisierung des Verkehrswesens in Grossbritannien.* A note on the forms of organisation of socialised transport in Great Britain.

Europa Archiv.

VOL. IV, NO. 5. *Das kalkulierte Risiko. Die Verfassung der bolschewistischen Partei. Die Sozialpolitik in den Vereinigten Staaten von Amerika.*

VOL. IV, NO. 6. *Definition des Angreifers und Beistandsverpflichtungen in den europäischen Verträgen der Nachkriegszeit. Entschliessungen des zweiten Jahreskongresses der Europäischen Union der Föderalisten (UEF) in Rom. Tonnage und Transporte nach dem Kriege. Die Sozialpolitik in den Vereinigten Staaten von Amerika. Eisenbahn-, Luft- und Schiffsgütterverkehr.*

VOL. IV, NO. 7. *Ein neues Stadium der eruopäischen Einigungsbewegung:* E. KOGON. *Das Projekt einer Europäischen Versammlung. Schlussfolgerungen und Empfehlungen des Brüsseler Kongresses der Europäischen Bewegung. Der Wortlaut des Sechsmächtekommuniqués uber die Grenzberichtigungen im Westen. Die Reparationsleistungen der sowjetischen Besatzungszone Deutschlands. Die Verstaatlichungen in der Tschechoslowakei.*

VOL. IV, NO. 8. *Die Bürde des weissen Mannes. Afrika im politischen Weltbild der Gegenwart. Die osteuropäische Wirtschaftsrevolution. Die Reparationsleistungen der sowjetischen Besatzungszone Deutschlands, Part 2. Der Wortlaut des Atlantikpaktes.*

VOL. IV, NO. 9. *Flucht nach Europa? Die sowjetische Aussenpolitik und der Abschluss des Atlantikpaktes. Afrika im politischen Weltbild der Gegenwart. Deutsche Industriereparationen 1948. Revision des*

deutschen Reparationsprogramms. Die Tennessee Valley Authority als regionales Planungsexperiment.

VOL. IV, NO. 10. *Politische Grundprobleme einer europäischen Föderation. Um die politische Struktur der westeuropäischen Zusammenarbeit. Der Berliner Blockade im Ost-West-Konflikt. Die Standardisierung von Verbrauchsgütern in Deutschland. Das nächste Stadium der westeuropäischen Wirtschaftsplanung. Deutsche Auslandsguthaben.*

VOL. IV, NO. 11. *Die Anfänge der amerikanischen Ruhrpolitik. Italiens Weg aus dem Kriege (1943–1945). Das Aufforstungsprojekt der Sowjetunion für 1950–1965. Vorschläge zur Lösung des deutschen Flüchtlingsproblems.*

VOL. IV, NO. 12. *Grenzen und Möglichkeiten des Europa-Statutes. Die Vereinigten Staaten in der europäischen Bildung. Die vertraglichen Regelungen über deutsche Gebietsabtretungen 1945–1949. Wirtschaftsplanung und Planwirtschaft in West-und Osteuropa. Der Aussenhandel der sowjetischen Besatzungszone Deutschlands 1945 bis zur Gegenwart.*

Giornale Degli Economisti e Annali di Economia.

JANUARY–FEBRUARY 1949. *Gli Studi di Vilfredo Pareto sulle funzioni di domanda e offerta :* G. SENSINI. *Nuovi problemi dalla polemica Scorza-Pareto :* E. ZACCAGNINI. *Una Generalizzazione delle equazioni di Pareto-Slutzky :* A. BORDIN. *L'analisi Pareto-Slutzky della domanda e la teoria delle imposte sui consumi :* E. D'ALBERGO. *Richerche " sulla curva dei redditi " :* R. D'ADDARIO. *Sulla curva dei redditi :* F. GIACCARDI. *Alla scuola di Vilfredo Pareto e Maffeo Pantaleoni :* B. GRIZIOTTI.

Rivista Italiana Di Demografia e Statistica.

SEPTEMBER 1948. *L'ereditarietà della fecondità dal punto di vista statistico :* F. SAVORGNAN. *La numerosità delle popolazioni animali :* G. SENSINI. *Di alcune definizioni insidiose e delle forme fondamentali di una distribuzione statistica :* L. GALVANI. *Efficacia della selezione e tavole selezionate di mortalità nell' assicurazione vita :* G. DE MEO. *La " statistica morale " ieri e oggi :* G. SCHEPIS. *Considerazioni su alcuni fenomeni demografici nella popolazione italiana dell'Eritrea, dal 1882 al 1923 :* V. CASTELLANO. *Applicazione dei profili grafici pluricaratteristici alle indagini di statistica aziendale :* N. GHELLI.

Rivista di Politica Economica.

DECEMBER 1948. *III° Convegno di Studi di Economia e Politica Industriale. L'opera di Pareto nella tradizione italiana degli studi politici :* L. AMOROSO. *Genealogia di Vilfredo Pareto :* L. A. *Finanza neutrale, finanza extrafiscale e politica economica :* C. ARENA.

Economia Internazionale.

VOL. II, NO. 1, FEBRUARY 1949. *Alcune reflessioni sul commercio europeo :* A. LOVEDAY. *Risparmio, progresso tecnico e disoccupazione :* C. GINI. *Sull'imposta equa e sull'utilità marginale della moneta :* C. JORDAN. *Emanuele Sella :* M. FASIANI. *Componenti e significato della velocità circolare della moneta :* A. FRANCHINI-STAPPO.

Review of the Economic Conditions in Italy.

MARCH 1949. *Unemployment in Italy :* F. C. D'ANNA.

Italian Economic Survey.

JANUARY–FEBRUARY 1949. *Lights and Shades. Italy's Four Year Economic Plan.*

MARCH–APRIL 1949. *Italy's Foreign Trade.*

Critica Economica.

FEBRUARY 1949. *Leggi e monopoli :* A. FIACCADORI. *Il nuovo indirizzo scientifico nell'economia americana :* J. GRIZIOTTI.

Banca Nazionale del Lavoro Quarterly Review.

JANUARY–MARCH 1949. *Bilateral and Multilateral Trade:* C. GINI. *The Italian Long-Term submitted to the O.E.E.C.:* R. TREMELLONI. *Southern Italy:* A. MOLINARI. *Italy's State Budget, 1945–48:* G. E. M. Z.

Ekonomisk Tidskrift.

LI, NO. 1, MARCH 1949. *Structural Phases in Swedish Industrialism:* JOHAN ÅKERMAN. An analysis of Swedish cyclical data for the period 1866–1938 designed to identify "structural" phases. This is a supplement to the similar investigation into the experience of the U.S.A., England, Germany and France, included in the author's *Ekonomisk Teori*, Volume II (reviewed in this JOURNAL, September, 1946). The results may be summarised as follows: (1) The history of industrialism in Sweden reveals two important turning-points, 1904 and 1932. The former marked the emergence of Sweden as an industrialised country with its level of activity dominated by the course of investment in timber and pulp, engineering and iron ore. The second date—the trough of the world depression—inaugurated the phase of economic planning. (2) Up to the turn of the century the course of the trade cycle in Sweden was determined largely by the timing of crises in the United States. After 1904 Sweden was more under the influence of business fluctuations in England. (3) Sweden was much later than England and the U.S.A. in arriving at her first turning-point; and she remained in the second phase for a much shorter period of time. (4) The Kitchin and building cycles in Sweden have diverged from those of the U.S.A., but there is a fair correspondence between the ordinary cycle in the two countries. This is partly explained by the impact of America's four-yearly Presidential election on the course of business activity. (5) The study supports those theories which stress the importance of *uneven* growth of investment during periods of upswing. *Recent Tendencies in Soviet Statistics:* ARNOLD P. AIZSILNIEKS. A series of revealing quotations from Soviet literature on the role of statistics and mathematics in economic "science." The key-note is given by M. N. Smit (Economic Institute, Soviet Academy of Science), who declares that "bourgeois statistics is dominated by the formal mathematical method. This method is used by bourgeois statisticians to draw a veil over capitalist exploitation and to create a false picture of the capitalist economy." According to A. L. Katz, a marxist analysis shows that in the period 1922–29 total real purchasing power in the United States increased by only 5–6% and the total real wages of the workers did not rise by more than 1%; whereas, according to the mendacious calculations of capitalist statisticians, the output of consumption goods in America in that period rose by 30% and the purchasing power of the population by 30–33%. Western statistics of national income are nothing but a fraud. Those who concoct them count things twice over and treat as income "items which should be regarded as losses, *e.g.*, expenditure on State administration and imperialist armies, church revenues, and the incomes of lawyers, judges, brokers, speculators, etc." (It is an engaging thought that Mr. Vyshinsky's service as Chief Prosecutor in those infamous trials was a negative item in the national income of the Soviet Union!) Mr. Varga is sharply criticised for resorting to tainted bourgeois sources which led him to say that "the American population consumed 20% more foodstuffs than are necessary for a normal sound diet." (*Changes in the Capitalist Economy as a result of the Second World War,* 1946).

Nordisk Tidsskrift for Teknisk Økonomi.

NOS. 1–4, 1948. This issue of the journal, four numbers in one, is a *festschrift* in honour of Professor Zeuthen on his sixtieth birthday. All the articles are in English. A note at the end says that negotiations are in progress for the journal to continue as a joint "Scandinavian Econometric Review." *Discontinuities of employment cycles:* JOHAN

ÅKERMAN. The pattern of the trade cycle has undergone big changes due to structural economic alterations, and different explanations of it are necessary at different periods. *International Accounting :* ODD AUKRUST. A system of accounts suitable for describing economic activity within a group of countries and the relations between the group and the rest of the world is proposed. *A Comparison of the respective conditions on which social and private building enterprises may be granted government loans :* RACHEL BAGER. *Polysony-Polypoly :* BORGE BARFOD. A concise algebraic statement of the marginal conditions of equilibrium of the firm under monopsony, duopsony and poly(p)sony. *Some Notes on the Structure of the Duopoly Problem :* HANS BREMS. The "Theory of Games" in its present form is not considered to be applicable to duopoly analysis because the condition of perfect information is not fulfilled. Various recent contributions to duopoly theory are summarised, and the author constructs a set of equations relating to the multi-period planning of a duopolist under conditions of uncertainty. The (not too surprising) result is that "any parameter of action will be used to such an extent by either duopolist that small changes in the discounted sum of his purchases will bring about small changes of equal size in the discounted sum of his revenues, irrespective which parameter of action he chooses to change." *A note on business planning and interest rates :* HARALD DICKSON. The Hicksian concept of the preferred production plan is made very precise. *A few remarks on the Application of Statistical methods in industry :* G. FAGERHOLT and A. HALD. *Price Theory and Reality :* BJARKE FOG. Business men deny that they aim to maximise profit, but this relates to the short-run only, and the maximisation assumption is applicable when long-run considerations are taken into account. Average rather than marginal cost is the basis of price fixing, though from the long-run point of view this is not incompatible with profit maximisation; theory ignores the time dimension of marginal cost. Fixed costs are often allocated by conventional rules of thumb. Many prices are fixed by cartels of trade associations, and one business-man on being asked on what basis they did it replied, "Why, don't you people know that prices are determined by supply and demand ? " ! *Overdeterminateness and optimum equilibrium :* RAGNAR FRISCH. In terms of some simple models it is shown that certain taxes or specific forms of the wage-function may be necessary in order to secure an optimum equilibrium. *On redistribution of Income :* JØRGEN GELTING. A formula for the degree to which a redistribution of money income from capitalists to workers will affect the distribution of real income is derived from a macro-economic model. *The Marginal Productivity Function and the Walras Cassel System of Equations :* B. GLOERFELT-TARP. *Calculation of Sylvicultural Balance-Numbers :* A. H. GRØN and F. JØRGENSEN. Such a balance-number is the present net value of a standing crop of timber. *Simultaneous Operation of Several Machines by One Person. Application of a Method of Probability :* E. K. HENRIKSEN. *Social Production Theory :* IVAR JANTZEN. The author investigates the optimum output of a public utility on the somewhat peculiar assumption that it is desired to maximise the sum of the difference between the total utility and total cost and the difference between total receipts and costs. He considers various forms of rate fixing and, somewhat cavalierly, dismisses the "socialist" idea that marginal cost should equal price, preferring an equation of marginal rate with marginal cost. *Stochastic Processes Applied to a Simple Problem of Administrative Economy :* ARNE JENSEN. *Some Aspects of the Rationalisation of Public Administration :* HOLGER KOED. *Division of Labour as an Optimum Problem in Organization and Management :* R. KRISTENSSON. *The Theory of Games and Economic Behaviour :* G. LEUNBACH. *The Profit Motive and the Theory of Partial Equilibrium of the Firm :* OLE MYRVOLL. The equilibrium conditions of the firm are derived on the assumption that the entrepreneur's utility depends not only on his profit, but also on his output and selling outlays. *Relation of Operating Costs to Tonnage of Ships in Ocean Transport :* E. W. PAULSON. *The Control of the Value of Money in a*

Free Economy : JØRGEN PEDERSEN. Full employment and a stable price-level are both possible only if there is a direct control of wages. *Problems of Telephone Economy as seen from a Statistical Point of View :* H. C. PLESSING. *Some Remarks on the Joint Effect of Simultaneous Relations between Economic Variables :* P. N. RASMUSSSEN. Just as in econometric analysis it is not usually satisfactory to determine each of the equations independently of the others, so in economic theory it is not permissible to detach one relation from its simultaneous connections and consider the effect of changes in the independent variable. The *ceteris paribus* clause is thus very dangerous in macro-economics. This is illustrated by a dynamic model, where the simultaneous approach gives the result that a small acceleration coefficient means a high acceleration. *A Note on the Consumption Function :* ERICH SCHNEIDER. A stable consumption function requires that the distribution of income depends upon the level of income itself. *On the Reproduction of the Trend by the Method of Simple Moving Averages :* W. SIMONSEN. *Some Remarks on Objectivity and Subjectivity :* THOMAS SINDING. *Utilization of Productive Capacity and the Problem of Intensity in Agriculture :* K. SKOVGAARD. *Some Problems in Laying Out a New Traffic Line :* P. P. SVEISTRUP. A survey of the economic factors which must be considered in deciding whether or not to construct a new railway line or bus route. *An Attempt to Analyse the Problem of an Economical Production of Statistical Data :* L. TÖRNQUIST. *On the Future of Income Tax :* C. WELINDER. *On Giffen's Paradox :* H. O. A. WOLD.

Nationaløkonomisk Tidsskrift (*Copenhagen*).

NOS. 1–2, 1949. *A Recession in the U.S.A. :* SVEND LAURSEN. A discussion of the present situation and possible future trends. *Reconstruction of the Monetary System :* JØRGEN PEDERSEN. Since an essential part of post-war government programmes has been the restoration of a sound monetary system, it is important to know what this means. Since the function of money is to facilitate exchange, *i.e.*, to be general purchasing power, soundness implies that the markets for products and factors are free and, furthermore, that the value of money is stable. As regards the latter, two types of inflation may be distinguished : spontaneous inflation is due to excess demand for labour, and is self-generating; autonomous inflation is a matter of a wage-price spiral due to the bargaining strength of trade unions, and may be started, for instance, by a fall in labour productivity. The measures that have been taken fall into three groups : (1) Reduction of the quantity of money. Interest-rate regulation may help to cure spontanoous inflation, but nothing can be done this way to check autonomous inflation, since precipitation of a deflationary liquidity crisis reduces monetary soundness. (2) Reduction of demand. Taxation may only remove spontaneous inflation and produce trade balance by creating unemployment so that the latter forms the price of the removal of controls. Fiscal policy can only cure autonomous inflation at the expense of deflation. (3) Price control. By the end of the War, money incomes had risen much more than prices, while output was low. Heavy subsidies, rationing and strict import control were necessary, luxury goods became more profitable to produce than necessities or exports and a big investment demand arose. Thus the checks on autonomous inflation worsened the spontaneous inflation. Altogether, the measures taken have kept down inflation only at the price of much restriction, so that the monetary system has become less, not more sound since the War. In order to change this, the first essential is to cease to teach the people that a six-year war and the subsequent changes have made possible a higher standard of living. Prices must rise to the level determined by costs and demand, and this requires that the coupling between wages and the cost of living be broken. *Restrictions or Financial Policy ? :* KJELD PHILIP. The "one thing leads to another" thesis is illustrated by a discussion of Danish economic controls during the thirties, and some of the difficulties of restoring equilibrium in the balance of payments

without controls are discussed. *Present and future housing requirements:* SVEN DANØ. *On Estimation Problems for Macro-models:* P. NØRREGAARD RASMUSSEN. A short and relatively simple survey of the need in econometrics for formulating relations stochastically and for estimating the parameters simultaneously instead of by using the least-squares method for one equation at a time. *An Economics Thesis:* ERIK LINDAHL and AXEL NIELSEN. A discussion of Gelting's *Finansproceseeni det økonomiske kredsløb.*

Skandinaviska Banken Aktiebolag.

APRIL 1949. *Government Borrowing and the Surplus Funds of the Banks:* P. BRUNDELL. *Investment in Swedish Farming:* S. HOLMSTRÖM. *Income Inflation and Income Levelling in Sweden:* K.-G. HAGSTROM. *The National Income:* I. OHLSSON. *The Economic Situation during the First Quarter of 1949.*

Index.

NO. 179, MARCH 1949. *The Economic Situation. The Distribution by Countries of Sweden's Foreign Trade. Sweden and the Marshall Plan.*

Økonomi og Politik.

OCTOBER–DECEMBER 1948. *Fransk indenrigspolitik 1948:* L. KRABBE. *Sydrafrikansk politik:* E. RESKE-NIELSEN. *U.S.A.'s Valg:* P. WINDING. *Den jødiske kolonisation i Palaestina:* V. HANSEN. *Den internationale økonomiske situation. Den økonomiske udvikling i Danmark. Kortere meddelelser. Politisk kronik.*

JANUARY–MARCH 1949. *Betragtninger over vor tids samfundsrevolution:* T. GEIGER. *Raffineringen-oljeindustrins flaskhals:* E. LANGLET. *F.N.s virksomhed i 1948:* E. RESKE-NIELSEN. *Institutet for Historie eg Samfundsøkonomi.*

Ekonomiska Samfundets Tidskrift.

VOL. II, NO. 1, 1949. *Verkstadsindustrins aktuella omställningsproblem inför partiell övergång från krigsskadestånd till hemmamarknad och fri export:* R. HERNBERG. *Fastighetskostnader och hyresnivå:* G. MODEEN.

Moneda y Crédito.

DECEMBER 1948. *En torno a la planificación económica:* J. SARDÁ. *La política de crédito en Francia, en 1949:* A. F. PARDO. *Euráfrica:* R. MARTINEZ.

El Trimestre Económico.

JULY–SEPTEMBER 1948. *El banco interamericano:* E. VILLASEÑOR. *La Argentina se decide por la planificación económica:* G. PÓLIT. *La tasa natural en el mercado de capitales de México:* A. L. IÑÁRRITU. *Nueva España en la economía monetaria venezolana:* E. A. FARÍAS. *Una nota sobre el efecto ingreso, el ejecto sustitución y la elasticidad de la demanda:* J. E. DE LOS REYES. *El campo y método de la economía:* O. LANGE.

OCTOBER–DECEMBER 1949. *El territorio nacional:* E. A. PATIÑO. *La devaluación del peso mexicano:* E. PADILLA. *La agricultura en Venezuela:* R. FERNÁNDEZ and Y. FERNÁNDEZ. *Los pagos internacionales y el ingreso nacional:* J. R. HICKS. *La balanza de pagos, y las inversiones financiades con préstamos exteriores:* J. J. POLAK.

JANUARY–MARCH 1949. *Política industrial:* M. BRAVO. *Inversiones privadas, productividad, salarios y ocupación:* A. M. DE NICOLÁS. *Anotaciones sobre la historia del largo plazo:* A. L. IÁÑRRITU. *Comentarios al Anteproyecto de Ley General de Bancos de Venezuela:* E. MONTEALEGRE. *La doctrina de la seguridad social:* J. M. Y. SAN MARTÍN.

Revista de Ciencia Aplicada.

JANUARY–FEBRUARY 1949. *Situación actual de la industria de los agrios en Estados Unidos:* J. R. IRANZO.

Revista de Economia (Lisbon).

SEPTEMBER 1948. *Origem e destino da teoria subjectiva do valor :* A. CASTRO. *Algumas notas sobre as teorias de Keynes :* S. DE ABREU. *Algumas considerações sobre a teoria da capitalização :* A. M. SÁ DA COSTA. *Indicadores de tributação :* V. MOREIRA. *A Cisão nuclear como fonte de energia industrial :* J. R. MENKE. *Sobre o equilíbrio do consumo :* R. RODRIGUES.

DECEMBER 1948. *Determinação da variabilidade da velocidade de circulação das disponibilidades à ordem do público nos Bancos (1932–1939) :* J. ALARCÃO.

MARCH 1949. *Da Economia Neoclássica tradicional à nova Economia Keynesiana :* F. P. LOUREIRO.

Revista Brasileira de Economia.

MARCH 1949. *Dupla Tributação Internacional e Investimentos :* E. L. RODGRIGUES. *Evolução Monetária Internacional :* A. H. HANSEN. *Contribuição da Econometria para a compreensao do mecanismo de transferência :* J. TINBERGEN.

Obzor Národohospodářský. (All the articles are written in Czech. The journal contains also a review of economic conditions in Czechoslovakia.)

NO. 5, JANUARY 1949. *The Budget of 1949 :* Z. LANGER. *Planning for Increased Production :* J. NEBESÁŘ. *The Problem of a Planned Balance of Payments :* M. HORNA.

Statisztikai Szemle. (Formerly Magyar Statisztikai Szemle of which the July–December issue did not appear : now Hungarian text only.)

JANUARY–MAY 1949. *An Introduction to the New Series of Statisztikai Szemle :* G. PIKLER. *The Concept of Production :* G. JAKÓ. *Certain Problems of Industrial Statistics in the New System in Hungary :* P. HAVAS. *Labour Statistics in Soviet Industry :* S. GENIN. *A Statistical Study of Labour Productivity and Cost of Production in the Textile Industry :* DR. K. KÁDAS. *The Structure of the Cost of Living Index :* L. CZINTULA.

Magyar–Sjovjet Közgazdasági Szemle (Hungarian and Russian text).

NO. 11, 1948. *The Balance of Hungarian Agricultural Production in the First Year of Planning :* V. LÁZÁR. *The Organisation of Soviet Collective Farming :* L. HANTOS. *The Organisation of Credit Regulation and the Part of the National Bank in the Direction of the Economy :* B. SULYOK. *Business Insurance in the Soviet Union :* S. B. *Hungarian Foreign Trade Planning :* P. PÉTAR.

NO. 12, 1948. *An Economic Analysis of the Soviet Monetary Reform :* J. KRONRAD. *Collective Farm Law in Eastern Europe :* L. JÓCSIK. *The Fundamental and Advantages of the Socialist Economic System :* M. MAKAROVA. *Social Insurance and Pension Schemes in the Soviet Union :* I. PADYEMNOV. *Planned Investment :* A. BIRMANN.

NO. 2, 1949. *The Council of Mutual Economic Assistance :* R. HARDI. *Economic Planning and Industry :* I. KARCZAG. *The Increase of Production in the Socialist Economy :* E. SÖMJÉN. *Rural Credit Policy in our People's Democracy :* P. SCHIFFER. *Group and Individual Farming on Soviet Collective Farms :* M. DOMRACHEV. *Cost Accounting :* J. JOFFE. *The Conclusion of the Five Months' Plan and the Beginning of the New Plan :* L. TÍMÁR.

Gazdaság (Hungarian text).

FEBRUARY 1949 (VOL. IV, NO. 3). *The Purpose of State Trading :* M. GERGELY. *The Technique of Cost Accounting :* G. RÉCZEY. *Wages under Socialism :* M. LOVAS. *American Imperialism and the Economy of Western Europe :* A. SAPIRÓ. *Reorganisation of the Hungarian Banking System :* DR. Z. ÓVÁRY-PAPP.

FEBRUARY 1949 (VOL. IV, NO. 4). *Financial Planning and the Single Account System (Refers to the new system whereby nationalised enterprises*

must make all transactions through a single account at the National Bank) : B. SULYOK. *The New Pensions Scheme since the Liberation* : A. SZAKASITS. *The Agricultural Plan in the Co-operatives* : P. RUBINYI. *Some Problems of the Measurement of the National Product* : P. HAVAS. *The New Structure of the Hungarian Banking System* : DR. Z. ÓVÁRY-PAPP. *Social Insurance in the Soviet Union* : J. VINCZE. *Some Problems of Statistics (A critique chiefly of Soviet statistical methods)* : I. PISHÁREV.

MAY 1949 (VOL. IV, NO. 9). *Old and New Rent Systems in Agriculture* : I. GÖNCZI. *Soviet Social Insurance and Old Age Pensions* : A. SZAKASITS. *Remarks on Making Factory Economics Clear and Comprehensible* : DR. A. SZÁSZ. *The Economic and Financial Situation in Hungary as Reflected in the Reports of the National Bank.*

MAY 1949 (VOL. IV, NO. 10). *Omissions in the Construction of the Five Year Plan* : M. LOVAS. *Hungarian Cotton Production in Perspective* : V. LÁZÁR. *Problems of Production in a Planned Economy* : M. SPIRO. *Uniformity of Notation in the Service of Socialist Industrial Statistics* : L. GÁL. *The Economic and Finanial Situation in Hungary as Reflected in the Reports of the National Bank* (continued).

Probleme Economice (Rumanian text).

NO. 1, JANUARY–MARCH 1949. *The State Plan of the Rumanian People's Republic* : S. ZEIGHER. *General Principles Underlying the Financial and Economic Unity of the State* : A. IACOB. *Basic Principles of the new Rumanian Salary System* : I. TIU. *Various Aspects of Standardisation* : A. GERSON. *The Council of Mutual Economic Assistance* : V. STOICAN. *Report of the Rumanian Workers' Party on Agriculture.*

Voprosy Ekonomiki (Russian text).

NO. 9, 1948. *Michurin Agro-biological Science and the Future Development of Agriculture in the U.S.S.R.* : V. ABRAMOV. *The Theory of Railway Freight Rates* : D. CHERNOMORDIK. *Economic Changes in Poland* : M. DUBROVSKI. *Report of Resolution and Debates of the Institute of Economics on the Deficiencies in and Tasks of Scientific Investigation in the Sphere of Economics.*

NO. 10, 1948. *The Stalin Plan for High and Stable Yields* : V. DMITRIEV. *New Labour Stimuli and Earnings under Socialism* : E. MANEVICH. *On Errors in Methodology in Economic Literature on Industry and Transport* : P. MSTISLAVSKI. *The "Gold" Politics of the U.S.A.* : F. MIKHALEVSKI. *The Cripps Plan of Economic Cuts* : M. SMIT. *Co-operation between American and Japanese Monopolies* : M. LUKIANOVA. *Discussion on the most recent edition of "published theses" at a meeting of the Chair of Political Economy of the Moscow State University.*

NO. 2, 1949. *Lenin and Stalin on Economics and Politics* : K. OSTROVITIANOV. *Fulfilment of the Five-year Plan on Time (Experience of the Kirov "Dynamo" Works in Moscow)* : N. ORLOVSKI. *A Contribution to the History of Agricultural Labour in Russia* : S. STRUMILIN. *Bulgaria on the Road to Socialism* : V. STARODUBROVSKAIA. *The Policy of the Labourite Colonisers and the Position of Workers in Africa* : I. LEMIN.

NO. 3, 1949. *The Acceleration of Turnover* : G. SALTYKOV. *The Mechanisation of Laborious Processes in Soviet Industry* : L. BERRY and K. KLIMENKO. *Collective Farm Labour* : M. KRAEV. *The Origins of the Ideological Struggle Round Two Types of Bourgeois-agrarian Evolution in Russia* : N. TSAGOLOV. *The Social–Economic Transformation of People's Democratic Czechslovakia* : A. KHACHATUROV. *Against a Reformist Tendency in Works on Imperialism* : E. VARGA.

Planovoe Khoziaistvo (Russian text).

NO. 1, 1949. *Forward to Communism under the Unconquerable Banner of Lenin and Stalin. The Teaching of Lenin and Stalin on Building Communism* : A. LEONTIEV. *Additional Sources of Industrial Profitability* : L. MAIZENBERG. *Maximising the Output and Improving the*

Quality of Coal : P. NAUMENKO. *Improving the Quality and Range of Basic Consumer Goods :* P. EVSEEV.

No. 2, 1949. *Bolshevik Planning—Powerful Instrument of the Steadfast Upward-trend in the National Economy of U.S.S.R. Questions of Socialist Industrialization in Vols. 7, 8, 9 of the Works of Stalin :* F. KOSHELEV. *State Budget for the 4th Year of the Stalin Postwar 5 Year Plan :* A. ZVEREV. *Struggle for Economy and for the Acceleration of Turnover :* G. ILIN. *Complex Mechanisation of Building :* V. BURGMAN. *Expansion of the Oil Monopoly of the U.S.A. :* L. BOKOVA.

Gospodarka Planowa (*Polish text*).

JANUARY 1949. Issue devoted to the new Polish six-year plan in its various aspects. *Fundamental requirements :* A. WANG. *Agriculture :* L. RZENDOWSKI. *Construction :* S. PIETROSIEWICZ. *Social and Cultural Problems :* S. GARCZIŃSKI. *Technology :* A. ZALEWSKI. *Soviet Assistance :* H. RÓŻAŃSKI. *Measurement of Productive Capacity.* J. ZAREMBA. *Location of Industry :* W. BUCH. *Investments for 1949 :* B. MINC. *The Profitability of Soviet Enterprises :* L. MAJZENBERG.

FEBRUARY 1949. *Lenin on Planning. The Council of Mutual Economic Assistance. The National Economic Plan for 1949 :* S. MAJEWSKI. *Report on the Execution of the Plan for 1948. The Principles and Structure of the Preliminary Budget for 1949 :* L. KUROWSKI. *Autonomy within a Planned Economy :* M. JAROSZYŃSKI. *Wage Reform :* J. JANIAK. *Metallurgical Industry in the Six-Year Plan :* M. LESZ. *The Liquid Fuel Industry in the Six-Year Plan :* DR. M. KOROLEWICZ. *Industry in the Czech Five-Year Plan :* S. WIELSKI. *The 1949 Rumanian Plan :* J. KOSEMIN.

MARCH 1949. *Re-organisation of the Central Economic Administration. The Preparation of the Industrial Plan for 1950 :* A. WANG. *The Financial Plan in Practical Planning :* B. BLASS. *The Role and Problems of the Investment Bank :* J. WOJNAR. *The Inception of the Plan for Raising Livestock Production :* M. MARKJANOWICZ. *Reform of the Statistical Programme :* Z. PADOWICZ. *The Methods of Planning Construction :* K. SECOMSKI. *Railway Problems in the Six-Year Plan :* B. CYWIŃSKI. *Hydro-electrification :* L. NOWICKI.

APRIL 1949. *The Appeal of the National Economic Council. The Way to Social Planning of Finance :* K. ŁUBIEŃSKI. *The Programme for the Chemical Industry in the Six-Year Plan :* A. ZMAZYŃSKI. *The Test of Solving Problems of Motorisation in the Plan. The Six Year Plan :* J. SMIGIELSKI. *The Essence of Planning an Economic System :* Z. PIROŻYNSKI. *The Methodology of Planning in Sea Ports :* J. PASZKOWICZ. *The Finance of International Trade.* J. SOKOŁOWSKI. *The Bulgarian Plan :* A. STAN.

Wiadomości Narodowego Banku Polskiego (*Polish text*).

No. 1, JANUARY 1949. *Remarks on the Financial Control of Nationalised Enterprises :* J. HERMANOWICZ. *French Monetary Policy in 1948 :* F. STRZESZEWSKI. *Problems of Investment Finance :* B. BLASS. *The Essence of the Credit and Cash Issue Plans :* DR. P. SULMICKI.

No. 3, MARCH 1949. "*Khozrashchot*" *: Fedosiev* (*Soviet Cost-accounting*). *Banking Method on the Payment of Invoices :* K. STRZEGOCKI. *The Argentine Crisis :* DR. S. PERCZYŃSKI. *The Financial Situation of Latin America :* R. SEIDLER. *The New Organisation of Czechoslovak Banks :* J. RUMLER. *The Social Budget for 1949 :* Z. PIROŻYŃSKI.

Izvestia Akademii Nauk S.S.S.R. (*Bulletin of the Academy of Sciences of the U.S.S.R.*), *Economics and Law Section* (*Moscow*).

1949, No. 1. *The Rôle of Consumers' Co-operation in the Realisation of the Lenin–Stalin Co-operative Plan :* F. AŁIUTIN. *The Rôle of Science and Technique in the Transition from Socialism to Communism :* A. ARAKELIAN. *On Some Tendencies in the Development of Agriculture in U.S.A. and the Situation of Farmers :* N. M. SEGAL.

Monthly Circular Survey of Economic Conditions in Japan.

SEPTEMBER–OCTOBER 1948. *General Economic Survey. Timber Requirements and Forestry Conditions. Analysis of Business Results (1).*

NOVEMBER–DECEMBER 1948. *General Economic Survey. Analysis of Business Results (2).*

JANUARY 1949. *Economic Situation during 1948.*

NEW BOOKS.

British.

ANDREWS (P. W. S.). Manufacturing Business. London: Macmillan, 1949. 8½″. Pp. xviii + 308. 15*s*.

[To be reviewed.]

ASHLEY (SIR WILLIAM). The Economic Organisation of England. Third edition. London: Longmans, Green, 1949. 7″. Pp. vii + 269. 8*s*. 6*d*.

[There can be few among the present generation of economists who were not brought up on Sir William Ashley's admirable little book. A generation of new work has by no means supplanted it as a useful first introduction to the subject. Prof. G. C. Allen has been persuaded by the publishers to add three chapters, in which he shows how the events of the past thirty-five years have modified the industrial tendencies that Sir William Ashley discussed in 1914. These new chapters are respectively entitled "Economic Instability and the Unemployment Problem," and "State Intervention and the Decline in Competition," subdivided into two parts. In these Prof. Allen has admirably succeeded in achieving the wise simplicity and generalisations that characterised the original book.]

BASU (S. K.). Financing of Post-War Industry. Calcutta: Book Exchange, 1948. 8″. Pp. viii + 96. Rs. 5/-.

[This small book is concerned primarily with the problems of financing post-war industry in India. But as a first stage in the process of learning from experience, the author studies in some detail the construction and operations of the Industrial and Commercial Finance Corporation and the Finance Corporation for Industry in Great Britain, the Industrial Development Bank of Canada, and the Industrial Finance Department of the Commonwealth Bank of Australia. Thus armed, he proceeds to consider the Industrial Finance Corporation of India and as an appendix publishes the Act which set it up. On the whole the author is satisfied that it is on the right lines and fills a serious gap in India's national economic structure.]

BONN (M. J.). Wandering Scholar. London: Cohen & West, 1949. 8½″. Pp. 403. 18*s*.

[To be reviewed.]

BRITISH INSTITUTE OF MANAGEMENT. Conference Series 1. Efficiency and Consumer's Choice. A report of the 52nd Oxford Management Conference. London: British Institute of Management, 1949. 9″. Pp. 52. 5*s*.

[The Report of a conference held at Scarborough during October, 1948. Speakers, whose addresses are here printed, included: Prof. A. J. Brown, who discussed such problems as consumer's sovereignty and technical efficiency; Mr. Herbert Morrison, who dealt with the consumer in relation to non-competitive industry; Mr. T. H. Windibank (of Crompton Parkinson Ltd.), who spoke of the advantages to the producer of limitation of choice; Mr. Sinclair Wood (of Pritchard Wood and Partners), who spoke of marketing and distribution methods. The subsequent discussions are also summarised.]

BRITISH INSTITUTE OF MANAGEMENT. The Organizational Structure of Large Undertakings—management problems. London: British Institute of Management, 1949. 9½″. Pp. 39. 2*s*. 6*d*.

[An examination by Sir Charles Renold of the nature of "large scale-ness" and its effects on methods of organisation of management. It concerns itself in

part with the limits of the manageable size of an undertaking and is of considerable interest not only to managers of firms but also to economists who are interested in the optimum scale of productive organisations.]

BRITISH INSTITUTE OF MANAGEMENT. Problems of Growth in Industrial Undertakings. London: British Institute of Management, 1949. 9″. Pp. 44. 5*s.*

[A paper by Mr. Urwick which analyses the different forms which a management may take at different sizes in the process of growth. In the view of the author three main problems of growth are likely to emerge. First, the problem of delegation by an owner-manager who has dealt with all the major functions of a business single-handed. Second, the problem of passing from a true "line" organisation when a business begins to need specialised and authoritative handling of its ancillary functions. Third, the problem of co-ordination created by progressive specialisation. The paper was discussed at a Conference in London, and the record of the subsequent discussion is attached.]

BRITISH LIBRARY OF POLITICAL AND ECONOMIC SCIENCE. Guide to the Collections. London: British Library of Political and Economic Science, 1948. 8½″. Pp. 136. 2*s.* 6*d.*

[A revised edition of the second part of *A Reader's Guide* to the Library of the London School of Economics. It indicates the principal bibliographical tools and the basis of classification in each main section of the library.]

COLE (MARGARET). Miners and the Board. London: Fabian Publications and Victor Gollancz, 1949. 8½″. Pp. 25. 1*s.*

[Mrs. Cole has attempted an honest, objective and dispassionate appraisal of the consequences of nationalisation of the coal industry as they are seen by the working miner. Because it is objective, and written by an avowed socialist, it will provide much ammunition for the opposition in the forthcoming election. The Fabian group, whose work she summarises, circulated a long and complicated questionnaire (a thing which one gathers from the pamphlet is a red rag to the working miner) to an unspecified number of individually selected people in the industry, chosen because they were well-placed for ascertaining and evaluating the general trend of opinion among those working in their particular districts. They got eighty-eight replies, and the pamphlet is based on that evidence. It suggests that the ordinary miner is loyal to the government, but intensely critical of the Coal Board; that he believes that it has created an unnecessarily large hierarchy of unnecessary and ill-chosen officials; that he knows little of the functions of management to be performed and the extent to which increased provision for safety, welfare and research has been responsible for some increase in the numbers, but not appreciably in the total cost of management. Mrs. Cole and her Group urge improved staff training, a great effort to improve personnel policy but not by special personnel managers who are suspect, the systematic training of managers, overmen and deputies, a more representative system of appointment of the higher levels of consultative committees, a better balance between centralisation and decentralisation, and finally new blood infused into the controlling bodies.]

CO-OPERATORS' YEAR BOOK 1949. Leicester: Co-operative Productive Federation Ltd., 1949. 7″. Pp. 112. 1*s.*

[As in past years, this volume contains a series of essays not only on aspects of co-operation but also on the broader nature of Labour policies. It includes, for example, discussions of industrial relations under a Labour government by Prof. G. D. H. Cole and of socialisation by Prof. J. B. Taylor.]

CROOKS (M.) and CRAWFORD (H.). The Practical Commercial Self-educator. London: Odhams Press, 1949. 8½″. Pp. 704. 8*s.* 6*d.*

[This book is a compendium of the practical techniques that are used in commercial work. It starts with a short section on the forms of business organisations, and the mechanical equipment of an office, with illustrations of calculating machines and other appliances. It goes on to sections on commercial correspondence, typewriting, commercial arithmetic, book-keeping and the like. There are short sections on commercial geography, imports and exports, the economic theories of production and distribution, works management and costing, mercantile law, insurance, advertising, salesmanship and finally business statistics. While it includes an immense range of information, presented in each case by

an expert on the subject, to compress so much into a single volume has inevitably meant that the treatment of each subject must be very brief and in some cases superficial.]

CURTIS-BENNETT (SIR NOEL). The Food of the People. The history of industrial feeding. London: Faber & Faber, 1949. 8½″. Pp. 320. 16*s.*

[To be reviewed.]

GANDHI (M. P.) (Ed.). The Indian Sugar Industry (1947–48 annual). Bombay: Gandhi, 1948. 9½″. Pp. xlviii + 136 + 30. Rs. 6/-.

[Mr. Gandhi's Annual Review again discusses the development of the sugar industry in India during 1947–48 with some comments on the following season.]

HAWTREY (R. G.). Western European Union. Implications for the United Kingdom. London: Royal Institute of International Affairs, 1949. 8½″. Pp. 126. 5*s.*

[To be reviewed.]

International Studies. Poland's Western Territories. London: Diplomatic Press and Publishing Co., 1949. 8″. Pp. 16. 1*s.*

[An account in English of Polish achievements since 1945 in the area between the pre-1939 frontiers of Poland and the new Oder–Neisse line. It is not easy, on the basis of this pamphlet, to compare the production of that area with that of pre-war years. Contrasts are drawn rather with the state of the area in 1945 and the heroic progress in increasing output is emphasised.]

JONES (I. G.). Essentials of Economics. London: Macdonald, 1949. 8½″. Pp. viii + 293. 9*s.* 6*d.*

[The author of this book is an Assistant Master at Epsom County Grammar School and at the same time lecturer in economics at the Technical College, Kingston-on-Thames. He has produced a rather unusual book. He wholly eschews literary artifice. The book is a series of numbered and subdivided notes setting out the main points. For example under, "Factors Influencing the Size of a Business Unit", appear seven main heads, most of which are subdivided into three or more points. Each term or law is defined, and where possible each point is illustrated. The result is extreme brevity and considerable lucidity at the expense of some considerable aridity. It is not easy to appraise the work unless one has seen it actually used and has discovered whether pupils, in fact, enjoy such dessicated pabulum. It is in the main accurate and careful. On the usual test course for books on elementary principles it fails only on quasi-rent, which appears to be treated as an abnormal surplus in excess of normal profits despite Marshall's footnote (8th Edition, p. 424). The value of money is explained (as is to be expected) in crude quantity theory terms. The treatment of rent does not effectively distinguish scarcity rent from differential rent and relies almost wholly on the latter aspect. The word marginal is nowhere clearly defined, and marginal utility and marginal cost are simply the utility or cost of the marginal unit. Again, we are told that "the employer purchases his labour, materials, and capital, up to their margin of productivity" without being told what this means. These may, however, be among the inevitable and necessary simplifications into which every elementary expositor is driven.]

JOUVENEL (B. DE). Problems of Socialist England. Translated by J. F. Huntingdon. London: Batchworth Press, 1949. 8½″. Pp. xvii + 221. 12*s.* 6*d.*

[To be reviewed.]

KEIRSTEAD (B. S.). The Theory of Economic Change. Toronto and London: Macmillan, 1948. 8″. Pp. xi + 386. 25*s.*

[To be reviewed.]

KEYNES (J. M.). Two Memoirs. London: Rupert Hart-Davis, 1949. 8″. Pp. 106. 7*s.* 6*d.*

[To be reviewed.]

KIRKALDY (H. S.). The Spirit of Industrial Relations. Bombay: Oxford University Press (London: Geoffrey Cumberlege), 1947. 7½″. Pp. xviii + 108. 7s. 6d.

[To be reviewed.]

LEWIS (W. ARTHUR). Overhead Costs. Some essays in economic analysis. London: Allen & Unwin, 1949. 8½″. Pp. 200. 15s.

[To be reviewed.]

LIPMAN (V. D.). Local Government Areas 1834–1945. Oxford: Blackwell, 1949. 8½″. Pp. x + 506. 25s.

[To be reviewed.]

MANSERGH (N.). The Commonwealth and the Nations. London: Royal Institute of International Affairs, 1948. 7½″. Pp. viii + 229. 8s. 6d.

[To be reviewed.]

MART (J. E). "The Common Man." Feeding a hungry world. Shrewsbury: Wilding, 1949. 7″. Pp. 41. 5s. 6d.

[A plea for economic development under the spur of private enterprise, with a limited state supervision, confined to matters of welfare and efficiency.]

MORRISON (HERBERT). Socialism the British Way. London: Essential Books Ltd., 1948. 7″. Pp. 345. 10s. 6d.

[To be reviewed.]

NAIDU (B. V. NARAYANASWAMI). Sir William Meyer Endowment Lectures, 1947–48. Madras Finance. Madras University, 1948. 9½″. Pp. 140. Rs. 5/-.

[Six lectures devoted to various aspects of the finance of the Province of Madras.]

The Nuffield Provincial Hospitals Trust. A Report on the Purpose and Activities of the Trust, 1939–1948. Oxford: University Press, 1949. 8½″. Pp. 54.

[A most impressive record of the work supported by the Trust down to July 1948. It is followed by a frank discussion of the place of such a Trust under the National Health Service Act. The Trustees have decided that there still remains plenty of work to do, which "can be summed up in three words: study, experiment, and demonstration."]

PIGOU (A. C.). Employment and Equilibrium. Second edition. London: Macmillan, 1949. 8½″. Pp. x + 283. 18s.

[In this revised edition the principal changes affect the statement of the Stability Conditions, formerly included in Chapter III of Part II. Two new chapters are substituted for the original single chapter. The new Chapter IV takes account of the criticisms made by Mr. Tsiang in the ECONOMIC JOURNAL of December 1944 and of the author's article in the ECONOMIC JOURNAL of December 1945.]

PORTEOUS (CRICHTON). Pioneers of Fertility. London: Fertiliser Journal, 1949. 8″. Pp. 125. 10s.

[This book consists of a series of brief studies of about a score of the outstanding personalities in the literature and history of farming from Fitzherbert to the present day. Each study occupies a few pages only and is very slight. It is apparently intended for popular reading and may serve that purpose though there are some errors of fact. The statement of average crop yields in 1750 given on p. 10 is much too low. Such averages would be more appropriate to the 1250 than 1750, and of course it is quite incorrect to say that before Arthur Young's time most wheat was imported. This country, in fact, was a wheat exporting country until about 1775. Such errors as this are unfortunate in a book designed to have a wide popular appeal.]

Proceedings of the International Congress on Population and World Resources in Relation to the Family. London: H. K. Lewis for the Family Planning Association of Great Britain, 1948. 8½". Pp. xviii + 246. 10*s*. 6*d*.

[A record of a conference held at Cheltenham in August 1948 under the organisation of the Family Planning Association.]

RAMASWAMY (T. N.). Rebuilding India. Banaras: Nand Kishore, 1948. 7". Pp. 259. 9*s*.

[Mr. Ramaswamy has set out to build the framework of a plan for Indian economic development. Any author who attempts this is necessarily in a dilemma. Either he plunges into statistical detail, and a reader becomes sceptical of his statistics; or he eschews an excess of statistics, and a reader becomes sceptical because he feels uncertain whether the rates of progress and of the growth and distribution of the national income that have been assumed are unrealistic. Mr. Ramaswamy has preferred the second horn of this dilemma. He sets out the general strategy and a considerable number of detailed targets for agricultural and industrial expansion; but a reader, regrettably without help from an index, finds it difficult to judge whether all these objectives are mutually consistent and reasonably practicable. It is, nevertheless, a stimulating little book appearing at an opportune moment.]

Review of the Trade of India in 1944–45. Delhi: Manager of Publications, 1949. 9½". Pp. 266. 4*s*. 6*d*.

[This rather belated volume carries the record of India's foreign trade down to the end of 1945 when the shadow of the war still affected all sections of the trade.]

RICH (E. E.) (Ed.) assisted by JOHNSON (A. M.). The Publications of the Hudson's Bay Record Society. Vol. XI. Letters Outward, 1679-1694. London: The Champlain Society for The Hudson's Bay Record Society, 1948. 9". Pp. xli + 414.

[The introduction of this volume makes a new departure by publishing a number of the contemporary maps of the areas covered by the Charter of the Hudson Bay Company. Since all parties to the disputes which arose after 1680 based their claims on the evidence of maps, a knowledge of the contemporary cartography is necessary to any full understanding. Six maps are beautifully reproduced in this volume, and their evidence is discussed and assessed in the introduction by Dr. E. G. R. Taylor.]

ROBERTSON (D. H.). A Study of Industrial Fluctuation. Series of Reprints of Scarce Works on Political Economy. No. 8. London: London School of Economics and Political Science, 1948. 8½". Pp. xxi + 277 + 31.

[The re-appearance of Prof. Robertson's earliest book in the series of Reprints of scarce works on Political Economy is immensely welcome. It is prefaced by a New Introduction in which the author charmingly expresses his diffidence and invites readers " to use it with especial care and scepticism." But he rightly draws attention to the fact that this discussion of 1915 ante-dates in several ways the discussions of " output as a whole " in the 1930's It is good that this book should again be available to all who are working in this field.]

SALAMAN (R. N.). The History and Social Influence of the Potato. Cambridge: University Press, 1949. 9". Pp. xxiv + 685. 50*s*.

[To be reviewed.]

SHACKLE (G. L. S.). Expectation in Economics. London: Cambridge University Press, 1949. 8½". Pp. x + 146. 10*s*. 6*d*.

[To be reviewed.]

SMITH (W,). An Economic Geography of Great Britain. London: Methuen, 1949. 8½". Pp. xii + 747. 32*s*. 6*d*.

[To be reviewed.]

SPROULL (R.). Accountants' Fees and Profits. London: Pitman, 1949. 8½". Pp. viii + 291. 28s.

[This book sets out the basis of the various scales on which accountants' fees are assessed, the rates that are applicable in different types of cases, the implications of the Companies Act and of other legislation and government action, followed by a discussion of the buying of a practice and of the assessment of costs and profits in a partnership or larger firm of accountants.]

TILLYARD (SIR FRANK), assisted by BALL (F. N.). Unemployment Insurance in Great Britain 1911–48. Leigh-on-Sea: Thames Bank Publishing Company, 1949. 8½". Pp. ix + 233. 21s.

[To be reviewed.]

Timber Industries Conference. Record of Proceedings. London: Timber Development Association, 1949. 8½". Pp. 61.

[A record of a conference convened by the Timber Development Association in March 1949. Its purpose was to consider the effects over a broad field of industry of the restrictions on timber imports, to secure as much agreement as possible on the means of overcoming the difficulties and to agree on recommendations to be made to the President of the Board of Trade. Experts from different sections of the timber-importing trade described the difficulties of supply and representatives of the timber-using industries analysed their own special problems.

Towards a Socialist Australia. Sydney: Fabian Society of New South Wales, 1949. 8½". Pp. 32. 1s.

[An attempt to state the case for Socialism in Australia and a plea that the Australian Labour Party should put forward a short-term programme for the next five years.]

WILLIAMS (J. H.). Post-war Monetary Plans and Other Essays. Oxford: Basil Blackwell, 1949. 8". Pp. viii + 395. 16s.

[This first English edition of Prof. Williams's admirable collection of essays includes, besides the commentaries on the development of the International Monetary Fund incorporated in the successive American editions, two highly stimulating essays on Keynesian economics and the Marshall Plan. The latter, reprinted from *Foreign Affairs*, is an extremely well-balanced appreciation of the problems of European economic recovery, stressing the necessity for treating the European problem as a whole. The former, retrieved from the limbo of the *Papers and Proceedings of the Sixtieth Annual Meeting of the American Economic Association*, presents a rather sceptical appraisal of Keynesian economics as a guide to policy. The consumption function, on which the whole theory of effective demand depends, is challenged as being inconsistent with the statistical findings of Kuznets (recent efforts to shore up the concept with a "secular upward drift" to the contrary); and the concept is criticised as presenting an over-simplified picture of the interaction of consumption and investment in the process of economic growth—Prof. Williams stresses the autonomous nature of spending on consumers' durables. As monetary theory, he argues, aggregative analysis encounters difficulty with price-wage changes in near-full-employment conditions; as trade cycle theory, not only does the Keynesian theory add nothing to previous knowledge, but the static nature of its concepts makes it inferior to the Swedish and Robertsonian approaches. Prof. Williams's general conclusion is that Keynes overgeneralised a theory constructed to support a particular policy recommendation, and that "the wave of enthusiasm for 'the new economics' will, in the longer perspective, seem to us extravagant." This essay, and indeed the whole of the book, deserves to be read (and re-read) by British economists; for Prof. Williams's shrewd common sense has often led him to foresee problems only appreciated by policy-makers after bitter experience. The American edition was reviewed by Mr. Guillebaud in the ECONOMIC JOURNAL of March, 1946.]

WOOD (W. E.). The Road to Your Career. Accountancy. A guide to those who are considering it as a career. London: James Barrie, 1949. 7½". Pp. 55. 2s. 6d.

[A brief guide for those who are thinking of accountancy as a career. It explains the divisions of accountancy, the functions and responsibilities of the chartered or auditing accountant, of the company accountant, the municipal accountant, the cost and works accountant. It describes the Societies and their examinations and gives a list of books for further reading and information.]

YATES (F.). Sampling Methods for Censuses and Surveys. London: Charles Griffin, 1949. 9″. Pp. xiv + 318. 24s.

[To be reviewed.]

American.

BRISCOE (VERA), MARTIN (J. W.) and REEVES (J. E.). Safeguarding Kentucky's Natural Resources. University of Kentucky, Lexington: Bureau of Business Research and Bureau of Government Research, 1948. 9″. Pp. x + 224.

[This is a survey of the administrative machinery for conserving the natural resources of Kentucky, and developing and exploiting them according to some conscious and systematic policy. Much is already done, but larger staffs and larger expenditures are recommended, and in some fields, notably mineral resources, conservation policy would appear to need strengthening.]

CORTNEY (P.). The Economic Munich. New York: Philosophical Library (London: Isaac Pitman), 1949. 8½″. Pp. xx + 262. 15s.

[The underlying purpose of this book is best described in the author's own words: "The occasion of this book is the signing of the International Trade Organisation Charter at Havana. This document is the product and combined result of economic fallacies and lack of vision. The ideas or doctrines underlying many objectionable provisions of the I.T.O. Charter are the aftermath of Keynes' teachings, and, perhaps even more so, of its distortions by zealots, ignorants, clever politicians or 'do gooders.'"]

CULLITON (J. W.). The Management of Marketing Costs. Harvard University: Graduate School of Business Administration, 1948. 8″. Pp. x + 166. $2.50.

[This is a preliminary study of the way in which business men regard marketing costs and of the techniques employed to estimate their efficiency. It reveals a great lack of standardization and is of interest for the problems which it introduces rather than for the conclusions which are reached. The principal of the latter is the need for further and more systematic research.]

Delivered Pricing and the Law. Washington D.C.: Chamber of Commerce of the United States, 1948. 9″. Pp. 27. 20 cents.

[This pamphlet is concerned with the legal position of the practice of charging delivered prices, of which the Pittsburgh-plus system is but a single example. Recent decisions, both of the Federal Trade Commission and the Supreme Court, are both complicated and controversial. This pamphlet attempts to set out the matters at issue and suggests the possible impact of different pricing policies on the American economy.]

DUERR (W. A.). The Economic Problems of Forestry in the Appalachian Region. Cambridge, Mass.: Harvard University Press (London: Geoffrey Cumberlege), 1949. 8½″. Pp. xi + 317.

[To be reviewed.]

DUNLOP (J. T.). Collective Bargaining: Principles and Cases. Chicago: Richard Irwin, 1949. 9″. Pp. xi + 427. $5.00.

[To be reviewed.]

The Economics of the Money Supply. Washington D.C.: Chamber of Commerce of the United States, 1948. 9″. Pp. 39. 25 cents.

[An elementary account of the processes of credit expansion.]

EITEMAN (W. J.), Price Determination. Business Practice versus Economic Theory. Ann Arbor: School of Business Administration, University of Michigan, 1949. 11″. Pp. 39.

[This monograph aims at a re-formulation of the theory of the equilibrium of the firm in rather more realistic terms and to bridge the gap between what the business man thinks he is doing and what the economists argue that he must do if he is to survive in the face of even such competition as prevails in conditions of imperfect competition. The monograph deserves attention and does not easily

lend itself to brief summary. Dr. Eiteman's main emphasis is on the importance of the study of turn-over, and its lengthening and shortening in the trade cycle; on inventories and their changes; on the twilight of uncertainty regarding the precise limits of demand. On the basis of these ideas, he seeks to build up a theory of price-output policy where price is equal to average cost at the minimum practicable scale of operation, and considerably above average cost at the probable scale of operation.]

GIBSON (R.). Cotton Textile Wages in the United States and Great Britain. A comparison of trends, 1860–1945. New York: Columbia University, King's Crown Press (London: Geoffrey Cumberlege), 1949. 8½″. Pp. 137. 12*s*. 6*d*.

[An interesting comparison of wages in the cotton industries of the U.S.A. and Great Britain and their trends from 1860 to 1945. Even as early as 1860 the British full-time weekly wage was only 67% of the American. Since then the upward trend in the U.S.A. has been faster. British wages were about 62% of U.S. wages in 1914; they were 52% in 1932; they briefly reached 64% in 1935, but were back to 60% in 1938 and down to 51% in 1945.]

GRAHAM (F. D.). The Theory of International Values. Princeton University Press (London: Geoffrey Cumberlege, 1949), 1948. 9″. Pp. 349. 27*s*. 6*d*.

[To be reviewed.]

HAHN (L. A.). The Economics of Illusion. A critical analysis of contemporary economic theory and policy. New York: Squier Publishing Co., 1949. 9″. Pp. viii + 273. $4.00.

[To be reviewed.]

HANSEN (A. H.). Monetary Theory and Fiscal Policy. New York and London: McGraw-Hill, 1949. 9″. Pp. vi + 236. 18*s*.

[To be reviewed.]

HARRIS (SEYMOUR E.). The European Recovery Program. Cambridge, Mass.: Harvard University Press (London: Geoffrey Cumberlege, 1949), 1948. 8½″. Pp. xvii + 309. 25*s*.

[To be reviewed.]

HART (A. G.). Money, Debt and Economic Activity. New York: Prentice-Hall, 1948. 9″. Pp. xviii + 558. $6.65.

[To be reviewed.]

HOWE (W.). The Mining Guild of New Spain and its Tribunal General, 1770–1821. Cambridge: Harvard University Press (London: Geoffrey Cumberlege), 1949. 8½″. Pp. 534. 42*s*.

[To be reviewed.]

IGNATIUS (P. R.). The Film in Industrial Safety Training. Harvard University: Division of Research, Graduate School of Business Administration, 1949. 8″. Pp. viii + 119. $1.50.

[This not only contains a technical study of the major problems of using films in industrial safety training, but attempts also to relate their use to the broader field of audio-visual training aids. It forms a part of a wider scheme of such research by the Harvard Business School.]

KENNEDY (T.). Effective Labor Arbitration. The impartial chairmanship of the full-fashioned hosiery industry. Philadelphia: University of Pennsylvania Press (London: Geoffrey Cumberlege, 1949), 1948. 9″. Pp. xi + 286. 20*s*.

[This monograph records the results of the appointment in 1929 of an impartial chairman as an arbitrator with the power of final decision if any dispute could not be settled by negotiation between the union and the employees in the unionised section of the industry. Before that, the unionised firms were losing ground rapidly to non-unionised. This book gives some history of the succeeding years and shows the procedures and techniques evolved. The purpose of this book is to

make available the lessons of this experiment, partly so that other industries may profit by them, partly so that defects may be remedied.]

LEWIS (E. H.). Marketing Patterns of Philadelphia Wholesalers. Philadelphia: University of Pennsylvania, 1948. 9″. Pp. vi + 90.

[A Ph.D. Thesis of the University of Pennsylvania.]

LINK (EDITH M.). The Emancipation of the Austrian Peasant 1740–1798. New York: Columbia University Press (London: Geoffrey Cumberlege), 1949. 9″. Pp. 204. 16s.

[To be reviewed.]

LITTERER (O. F.). Where does Small Business Obtain its Capital? Minneapolis: Federal Reserve Bank, 1948. 8½″. Pp. 18.

[This short study is based on inquiries made from 122 firms in a wide range of typical communities in the ninth district; sixty-nine of them were individual proprietorships or partnerships; four were Co-operatives; the remaining forty-nine were corporations. Dr. Litterer hesitates to generalise as to how precisely small businesses are provided with equity capital, and long- and short-term borrowed capital. But he concludes that, in present circumstances in the U.S.A., the number of potential new firms which are precluded from being started by lack of capital is not large.]

MARTIN (J. W.) and MORROW (G. D.). Taxation of Manufacturing in the South. University of Alabama: Bureau of Public Administration, 1948. 9″. Pp. viii + 110.

[State and local taxation in the Southern States is found after detailed examination and comparison to be relatively favourable to the continued growth and development of manufacturing industries.]

MATHERLY (ALVA MARIAN). Kentucky State Purchasing. University of Kentucky, Lexington: Bureau of Business Research, 1948. 9″. Pp. 61. 50 cents.

[A study of centralised purchasing by the State government of Kentucky. The goods concerned would appear to be chiefly paper, stationery and office supplies generally for the State offices and the public printer.]

MILLBANK MEMORIAL FUND. International Approaches to Problems of Undeveloped Areas. New York: Millbank Memorial Fund, 1948. 9″. Pp. 76. 25 cents.

[This contains nine papers delivered at a Round Table on International Approaches to Problems of Undeveloped Areas held in 1947 by the Millbank Memorial Fund. Papers are included by: Frank Notenstein on demographic problems; Henri Laugier of the U.N. Department of Social Affairs on first steps to live problems; David Weintraub on the work of the Economic and Social Council in this field; Leonard Rish on financial aspects; Samuel Thompson on social aspects of rural industrialisation; William Forscot on health aspects; Sir Raphael Cilento on social and evolutionary perspectives; Kingsley Davis on Puerto Rico's population problems; Rexford Guy Tugwall on problems of reconstruction in Puerto Rico.]

NATIONAL PLANNING ASSOCIATION. New Industry comes to the South. A summary of the report of the NPA Committee of the South on Location of Industry. Washington D.C.: National Planning Association, 1949. 9″. Pp. xv + 31. $1.00.

[This is a summary of the Report of the National Planning Association Committee of the South on Location of Industry. It attempts to appraise the Southern market, the material supplies of the South, the labour supply, transport facilities and the like.]

NATIONAL PLANNING ASSOCIATION. Planning by Americans in Agriculture, Business, Labor, the Professions. 1949 Report to Members of the National Planning Association. Washington D.C.: National Planning Association, 1949. 11″. Pp. 36.

[A popular and richly illustrated account of the work of the National Planning Association.]

NATIONAL PLANNING ASSOCIATION. Planning Pamphlets. No. 66. *Must we have Food Surpluses?* Pp. viii + 45. No. 67. *Beyond the Marshall Plan.* By J. K. Galbraith. Pp. iv + 28. Washington D.C.: National Planning Association, 1949. 7½″. 50 cents.

[To the English reader, who necessarily asks himself "Must we have perpetual food shortages?" the title of the first of these pamphlets is a paradox. He will find his potential hunger dismissed in a page entitled "Plenty of Need but Few Dollars." The Solution advocated is to shift production, including farm production, to fit the new demands of the American public. Part of the world is short of food, and America rich in developed farm production, why cannot the world be encouraged to pay America with manufactures? This pamphlet is skating on the surface of the problems it is analysing. The second pamphlet contains a most interesting analysis of European problems by Dr. Galbraith, preceded by a Joint Statement by the Board of Trustees and four of the N.P.A. Committees concerned with such problems. Dr. Galbraith emphasises that there are two groups of problems, political and economic, which the Marshall Plan is seeking to solve. In the political field it aims to consolidate the non-Communist forces in European countries. But Dr. Galbraith sees a tendency of fairly long standing for European politics, outside of the United Kingdom and one or two other countries, to become polarised at the two extremes. He attributes the contrast in this with the United States to the fact that in America great reforms can be wreaked from nature and made within the normal trend of progress in a country of great natural resources; in Europe the major reforms cannot be made without conflict between "haves" and "have-nots." He is concerned at the increasing alliance of American opinion with the "haves," and at the tendency to seek to impose on European countries in which democratic-socialism is a potential force—with its symbols of public ownership, government planning and the gradual evolution of a worker's State—the American symbols of private ownership, free enterprise and capitalism. "Moreover, the American version of free enterprise, a system that permits of an infinite variety of compromises in the domestic product, invariably becomes exceedingly pure and doctrinaire when packaged for export." He pleads, as does the Joint Statement, for greater political and economic toleration. When he comes to the economic issues, Dr. Galbraith goes less deep. He sees the difficulties of European recovery and the importance of closer European economic integration. He sees the obstacles to the simpler solutions of customs unions and central controls over capital investment. But he does not see how greatly the difficulties of a solution are increased by the internal inconsistencies of American commercial policy—the conflict between the desire to create a single world of freely convertible currencies, in which there is equal opportunity for American exporters, and the desire to create a closely co-operating Europe within which there are closer mutual economic ties than there can be with the outside world.]

NATIONAL PLANNING ASSOCIATION. Special Report No. 20. Why I am in the Labor Movement. Washington D.C.: National Planning Association, 1949. 9″. Pp. 55. $1.00.

[Fifteen labour leaders of the United States write on different aspects of the labour movement.]

PARDUE (BEULAH LEA). State Supervision of the Property Tax Assessments in Kentucky. University of Kentucky, Lexington: Bureau of Business Research, 1948. 9″. Pp. vi + 67. 50 cents.

[This study is concerned with the machinery that exists in Kentucky for preventing inequities through inequalities of assessment between tax-payers, counties and classes of payers, and for eliminating undervaluation or wholesale diversion of property from the tax rolls.]

PHELPS BROWN (E. H.). The Framework of the Pricing System. University of Kansas: Student Union Book Store, 1949. 8″. Pp. xvi + 221. $3.25.

[An American edition of Prof. Phelps Brown's well-known text-book, reviewed in the ECONOMIC JOURNAL of March 1937, by Prof. Hayek.]

Proceedings of the National Conference of Social Work. Selected papers, seventy-fifth anniversary meeting, Atlantic City, New Jersey, April 17–23, 1948. New York: Columbia University Press (for the

National Conference of Social Work) (London: Geoffrey Cumberlege), 1949. 9″. Pp. xvi + 498. 32*s.* 6*d.*

[Papers read to the Seventy-Fifth Anniversary Meeting of the National Conference on Social Work at Atlantic City during April 1948.]

ROOVER (R. DE). The Medici Bank: its organization, management, operations, and decline. New York University Press (London: Geoffrey Cumberlege, 1949), 1948. 10″. Pp. xv + 98. 22*s.*

[The American edition of this book was noted in the December 1948 issue of the ECONOMIC JOURNAL.)

SHISTER (J.). Economics of the Labor Market. New York: Lippincott, 1949. 8½″. Pp. xxiii + 590. $4.50.

[To be reviewed.]

SILK (L.). Sweden Plans for Better Housing. Durham, N.C.: Duke University Press (Cambridge University Press), 1948. 9″. Pp. 149. 22*s.* 6*d.*

[Prof. Silk made this study of Swedish housing plans while holding a Fellowship in Economics at Duke University and a Fellowship of the American Scandinavian Foundation. This beautifully produced and illustrated volume describes the methods by which Sweden has handled the problems of housing shortage. It starts with an historical account of the development of housing in Sweden, and comes down to current ideas of housing in relation both to town planning and social progress. Interesting developments occurred in 1943. The Social Democratic government virtually nationalised the planning and financing of housing, but not the actual construction or ownership. Prof. Silk believes that America (and presumably other countries) can learn much from Swedish experience which has shown substantial results, but he does not hold that the United States, with higher income standards, need go so far towards nationalisation as Sweden has done.]

SMITH (A. H.), BAHR (GLADYS) and WILHELMS (F. T.). Your Personal Economics. An introduction to consumer education. 2nd edition. New York and London: McGraw-Hill, 1949. 8″. Pp. xii + 458. 14*s.* 6*d.*

[This is designed as "a simple, yet comprehensive, course for the earlier years of the secondary school period when all students can be reached." Its purpose is to teach everybody economics by approaching the subject from the consumers' end, of which even a child has personal experience. It is written at an exceedingly elementary level, suitable mainly for American conditions. It is more concerned with protecting "the born gull from the born crook" than with inculcating, even in their most simple form, the more general principles of economics.]

SPIEGEL (H. W.). Current Economic Problems. Philadelphia: Blakiston Company, 1949. 8½″. Pp. x + 726.

[This is an attempt to see, through a single pair of eyes, the main problems that confront the American economy. They fall under the heads of progress, security, freedom and peace. Groups of chapters deal with each of these. Under Progress are studied population problems, technological progress and capital formation and economic prediction and measurement. Under Security come consumer problems, price and employment stabilisation, trade unions, distributive justice, social security, housing. Under Freedom and Order come the concentration of economic power, government and business, public finance, defence, public utilities. Under International Peace are examined the problems of international trade and finance. The special problems of agriculture, of the South and of the West have a final section of their own. This is a more than usually successful attempt to build on an unusual plan.]

Studies in Income and Wealth. Vol. XI. Conference on Research in Income and Wealth. New York: National Bureau of Economic Research, 1949. 9″. Pp. xii + 450. $6.00.

[To be reviewed.]

Taylor (H.) and Barger (H.). The American Economy in Operation. New York: Harcourt, Brace, 1949. 9″. Pp. ix + 846. $4.75.

[To be reviewed.]

Thrupp (Sylvia L.). The Merchant Class of Medieval London. Chicago: University Press (Cambridge University Press), 1949. 9″. Pp. xix + 401. 33s.

[To be reviewed.]

Wage-Price Spirals and Economic Stability. Washington D.C.: Chamber of Commerce of the United States, 1949. 9″. Pp. 24. 25 cents.

[This pamphlet examines the dangers of another inflationary round of wage increases in the United States.]

Warner (W. L.), Meeker (Marchia) and Eells (K.). Social Class in America. A manual of procedure for the measurement of social status. Chicago: Science Research Associates, 1949. 9″. Pp. xiii + 274. $4.25.

[To be reviewed.]

French.

Bettelheim (C.). Bilan de l'économie française, 1919–1946. Paris: Presses Universitaires de France, 1947. 9″. Pp. viii + 286. 360 fr.

[This book gives an exhaustive statistical account of the development of the French economy from World War I until the present day. The reader is given extensive information about agricultural organisation, industrial development, demographic changes, financial structure and foreign trade, mainly in tabular form. This division of subject makes the data difficult to assimilate, and one would have welcomed a chapter giving some comparative estimates of the French national income. The third part of the book is probably the most interesting. It gives a valuable account of the French economy during the years of occupation. The author concludes that the decline in French economic power was primarily due to the social and economic consequences of an ageing population, the failure to develop foreign trade and the growth of monopoly power. "C'est pourquoi certains pensent que seul une revolution sociale est susceptible de mettre fin à cette regression économique . . ."; as one expects, the author is in favour of extensive nationalisation of monopoly industries and extensive economic planning.]

Bettelheim (C.). Esquisse d'un Tableau Économique de l'Europe. Paris: Domat, 1948. 7½″. Pp. 356.

[M. Bettelheim has set himself the task of examining what effects the War has had upon European economic potential and what hope there is for economic revival. Although he lays the blame for the economic difficulties of the inter-war years at the doors of autarkic policy and monopolistic practices and places some emphasis upon the restriction on international trade, he does not consider that Europe will benefit appreciably from the type of multi-lateralism associated with the various international organisations set up since 1944. For instance, M. Bettelheim makes the point that one of the fundamental sources of economic disequilibrium in Europe is that the latter is relatively over-populated. (A precise definition of over-population is not given.) But "it is one of the paradoxes of the I.T.O. Charter that while it envisages the free movement of capital and commodities, it does not provide the same freedom for men, for the countries most able to accept emigrants do not wish to move the restrictions against free entry. The first two fundamental liberties, if not matched by a third, will condemn millions of individuals to starvation conditions." But for all M. Bettelheim's able statistical survey and occasional pointed remark about post-war economic conditions in Europe, the only crumb of comfort he provides is that the correct solution is "world economic planning."]

BRAIBANT (G.). La Planification en Tchécoslovaquie. (Le plan biennal.) Cahiers de la Fondation Nationale des Sciences Politiques No. 6. Paris: Armand Colin, 1948. 9½″. Pp. 160.

[The author is concerned to give an exhaustive account of the planning machinery set up by the Czech Government in 1946 rather than with the problems it was designed to solve. The book was published before the full effects of the Biennial Plan could be examined, and thus, when it deals with the specific problems of the Czech economy, it becomes more of a catalogue of good intentions than an analysis of the effects of planning itself. Some interesting comparisons between production targets and realised totals for 1947 are made, and some precise indication is given of the effect of the disastrous drought upon agricultural recovery in that year. The Biennial Plan is given in full in an Appendix, and there is quite an extensive bibliography.]

BURCHARDT (F. A.) and Others. L'Économie du Plein Emploi. Paris: Presses Universitaires de France, 1949. 9½″. Pp. 234. 600 fr.

[This is the French translation of the well-known Oxford Institute of Statistics publication *The Economics of Full Employment.* The reproduction is good and the translation is competent.]

Les Chemins de Fer en U.R.S.S. Paris: Presses Universitaires de France, 1946. 9½″. Pp. 77.

[A short and readable acount of the development of railways in the Soviet Union. The descriptive material reinforces the obvious conclusion that the economic expansion of Siberia must depend upon adequate railroad communication. Although classified as a statistical and economic study, the booklet is primarily an exercise in economic geography.]

DEHOVE (G.). Impôt, Économie et Politique. Vol. I. Pression fiscale et équilibre économique. Paris: Presses Universitaires de France, 1947. 9½″. Pp. xvi + 406. 400 fr.

[This book is the first of two devoted to an elaborate study of the incidence and effects of taxation on both the individual consumer and producer and the whole economy. This study is super-imposed upon a detailed analysis of the various theories of value familiar in economic theory. There are two interesting features in the book. Firstly, the author has relied almost exclusively upon Italian writers (*e.g.*, Barone, De Vico de Marco, Einaudi, Panteleoni, Pareto and many others) for his examination of marginalism, indifference curve analysis and his interesting survey of sociological theories of value. Secondly, in applying value theory to taxation problems the author has made the interesting point that indifference-curve analysis demonstrating the excess burden of indirect taxation was used by Barone as early as 1912 in the *Giornale degli Economisti.* M. Dehove is apparently unaware of developments in this aspect of economic theory in Great Britain and the United States. It is a great pity that the writer has had to assume that his fellow economists are ignorant of the elementary theory of value. Too much of this volume is devoted to unnecessary "Dogmengeschichte" which obscures rather than illuminates the points at issue. The use of diagramatic illustration is promiscuous. With two exceptions, the diagrams given are hardly necessary, and there are none given where they might save pages of text. Finally, special mention should be made of the invaluable list of Italian articles and books on taxation and value theory given in the appended bibliography.]

DESSUS (G.), GEORGE (P.) and WEULERSSE (J.). Matériaux pour une Géographie Volontaire de l'Industrie française. Paris: Armand Colin, 1949. 9½″. Pp. 178. 250 fr.

[This volume contains three studies of problems of industrial concentration in France. M. Dessus writes an unofficial French Barlow Report and draws very similar conclusions about the effects of industrial concentration to those of the Barlow Commission. M. George contributes the most interesting study of the three with an examination of the size of the industrial unit in various French industries. He encounters similar difficulties in the interpretation of official statistical data to those met by Rostas in his studies of industrial productivity. The predominance of the small firm, even in the extractive industries, is still a marked feature of French economy. The author does not, however, discuss the

relationship between size and efficiency. M. Weulersse confines his study to a description of the metallurgical factories in Tillières-sur-Avre which provide ample material for a study of industrial concentration in a rural setting.]

L'Institut National de la Statistique et des Études Économiques. La Palestine. Paris: Presses Universitaires de France, 1948. 9½". Pp. 192. 460 fr.

[Although this handbook is described as a "Mémento Économique," it gives a comprehensive account of the historical and political development of Palestine and provides a wealth of information on industrial and agricultural development in the inter-war years. Chapter XI, on Palestine's foreign economic relations, is particularly interesting for its explanation of fiscal problems and for its statistics comparing the inter-war and post-war balance of payments.]

NOGARO (B.). Les Grands Problèmes de l'Économie Contemporaine. Paris: Presses Universitaires de France, 1947. 7". Pp. 128.

[An outline of contemporary economic problems written for the layman in a series rather after the style of our own Home University Library. The Chapters on Prices and Money are very well expounded, and the book as a whole is clear and concise.]

NOGARO (B.). La Valeur Logique des Théories Économiques. Paris: Presses Universitaires de France, 1947. 9". Pp. viii + 185. 200 fr.

[The title of this book is somewhat misleading. It is in essence a critique of nineteenth-century economic doctrine except for a seven-page criticism of the Keynesian identity of saving and investment in Chapter VI of the "General Theory." In few cases has the author endeavoured to point out inconsistency in the formal logic of economic theorists; his main quarrel is with assumptions. For instance, in the case of the marginal theory of value, which is examined at length, the main criticism is that "nous ne sommes pas capables de classer rigoureusement nos besoins." The writer may have read Chapter VI of the "General Theory," but his criticisms, particularly his references to saving and hoarding, suggest that Chapter VII must have remained unread!]

RUEFF (J.). L'Ordre Social. New edition. Paris: Librairie de Médicis, 1948. 9". Pp. 659.

[A new edition in one volume of the book which was published in 1945 and noted in the ECONOMIC JOURNAL of June 1946.]

SILZ (E.). Le Relèvement économique et financier de la Hollande. Un succès du dirigisme. Paris: Centre d'Études de Politique Étrangère, 1947. 7". Pp. 101. 60 fr.

[After a short account of the economic effects of the War on the Dutch economy, M. Silz concentrates upon the problem of monetary stabilisation in Holland. By an interesting comparison with the Belgian currency reform, he attempts to show that the underlying economic conditions in both countries necessitated a different approach to the post-war inflation problem. As the book deals with the period from the Liberation of Holland to the end of 1946, it may seem over-optimistic in the light of the economic problems facing that country in 1947, the crucial year of Dutch recovery.]

WEILLER (J.). Problèmes d'Économie Internationale. Les Échanges de Capitalisme Libéral. Paris: Presses Universitaires de France, 1946. 9". Pp. 232. 240 fr.

[This book is a long and elaborate critique of the Classical theory of international trade, including the theory of the equilibrium of exchange rates, interspersed with a great deal of statistical information about inter-war exchange problems. The first part of the book is primarily empirical in content and discusses the factors which promoted international disequilibrium in foreign trade in the inter-war years. The second and third parts deal with the theory of comparative costs followed by the theory of the gold standard which, if comprehensive and elaborately documented, pays little attention to modern aspects of the theory of international trade. There is a very inadequate discussion, in six pages, of the foreign-trade multiplier. The fourth and fifth parts complete the empirical survey

by reference to problems of international investment and international monetary policy, special attention being paid to French experience. The author concludes that traditional theory will have little to tell us about the conditions of international trade in the years following the Second World War in view of the emergence of the planned State as the predominant political and economic order.]

Austrian.

GRUBER (K.). Die Zusammenhänge zwischen Grösse, Kosten und Rentabilität industrieller Betriebe. Vienna: Springer, 1948. 9½″. Pp. 24. 3*s*. 9*d*.

[This article from the *Zeitschrift für National ökonomie* has been separately published by Messrs. Springer.]

German.

MONTANER (A.). Der Institutionalismus als Epoche amerikanischer Geistesgeschichte. Tübingen: J. C. B. Mohr, 1948. Pp. 155. DM. 9.60.

[Even the most scholarly minded British or American economists will probably fail to grasp the line of thought from which a book like this emerges. It is a product of a typical German academic mentality, at least as it was known in pre-Hitler Germany. Why it should be necessary to go back to Heraclitus in order to define "institutionalism" as a doctrine "mainly prevailing among American economists, conceived by Thorstein B. Veblen, and differing from classical and neo-classical economics in rejecting pure theory and the method of isolation" is difficult to comprehend. The more so, as it is doubtful whether the author is right in his assumption that the demand or exact and statistical-empirical description of the factual social and economic institutions constitutes the fundamental difference between the classical and neo-classical economists on the one hand and the "institutionalists" on the other. This is more or less the line of demarcation which separates any non-classical school of economics from economic orthodoxy. It is the ethical orientation to which Veblen's views and those of his followers owe their special significance. Though the author arrives, by a somewhat circuitous route, at the conclusion that developments of American thought within the sphere of social sciences are related to European development (which is nothing new), it is interesting to learn that he is obviously strongly influenced by the modern American theory which regards economics as a science—if it is such at all—which forms only a single branch of a more general science of human behaviour. The author has taken great pains to list the huge literature, which clearly confirms that the idea of causal necessity in social phenomena has been in the intellectual atmosphere for more than a century, but also that until now mankind has tried in vain to adjust "causal necessity" to social-ethical demands.]

NEULING (W.). Neue deutsche Agrarpolitik. Tübingen: J. C. B. Mohr, 1949. 9″. Pp. vi + 250.

[To be reviewed.]

RUGINA (A.). Geldtypen und Geldordnungen. Fundamente für eine echte allgemeine Geld- und Wirtschaftstheorie. Stuttgart: Kolhammer, 1949. 9½″. Pp. xvi + 352. DM 20.

[To be reviewed.]

Dutch.

Report of the President of the Java Bank. Batavia: Kolff, 1948. 9½″. Pp. 26.

[This report covers the years 1941–47.]

Italian.

CASTELLINO (G.). Quaderni di cronache economiche V. I regolamenti internazionali. Turin: Camera di Commercio, Industria ed Agricoltura, 1949. 9½″. Pp. 101.

GANGEMI (L.). Amministrazione finanziaria pubblica. Naples: A. Morano, 1948. 9½″. Pp. 435. 1300 l.

GANGEMI (L.). Elementi di scienza delle finanze. Vol. I. Teoria generale. L'organizzazione sociale e la finanza publica. L'aspetto economico, part I. 4th edition. Naples: Eugenio Jovene, 1948. 9½″. Pp. viii + 537. 1800 l.

GANGEMI (L.). Elementi di scienza delle finance. Vol. II. Aspetto economico della ripartizione. Finanza straordinaria. Naples: A Morano, 1945. 9½″. Pp. 403.

Danish.

INSTITUTE OF FARM MANAGEMENT AND AGRICULTURAL ECONOMICS. Thirty Years of Farm Accounts and Agricultural Economics in Denmark, 1917–1947. Copenhagen: Ejvind Christensen, 1949. 9½″. Pp. 80. 2 Kroner.

[A study, here published in English, by the Danish Institute of Farm Management and Agricultural Economics, which summarises the Institute's experience of the past thirty years. It starts with a brief introduction to Danish agriculture, and goes on to the development of farm accountancy. The third, and most interesting, section deals with the main results of the investigations undertaken by the Institute. These are analysed under broad heads of prices and price relationships, production and market conditions, returns on capital, working costs and financial results, the economy of large and small farms, and finally certain social aspects and living expenses.]

Norwegian.

OUREN (T.) and SØMME (A.). Trends in Inter-War Trade and Shipping. Bergen: J. W. Eides Forlag, 1948. 11″. Pp. viii + 72. Kr. 15.

[To be reviewed.]

Polish.

BOBKOWSKI (S.). Metoda Racjonalnego Rozwiazania Zagadnień Gospodarczych i Społecznych. Lubeck, 1948. 8″. Pp. 59.

[A discussion of the rational solution of economic and social problems.]

Swiss.

SAGOROFF (S.). Begriff und Berechnung des Volkseinkommens. Eine Untersuchung über Reinprodukt und Einkommen im Rahmen der Volkswirtschaft. Berne: Francke, 1949. 8½″. Pp. 132. S. fr. 17.80.

[To be reviewed.]

Swedish.

MALMQUIST (S.). A Statistical Analysis of the Demand for Liquor in Sweden. A study of the demand for a rationed commodity. Uppsala: Appelbergs Boktryckeriaktiebolag, 1948, 9½″. Pp. 133.

[This book provides a detailed analysis of the sales of liquor in Sweden, principally over the years 1923–39, and is of particular interest since liquor rationing of a varying degree of strictness was in force over the whole period. Chapter I provides demand analyses in which the average quantity purchased in each year is expressed in terms of the average ration as well as the level of real incomes and real prices. It appears that real price and income elasticities are in the range one to four to one to three as compared with estimates in the range

one to two to two to three or even higher given for the United Kingdom by Stone and Prest. Chapter II is devoted to an examination of the meaning of demand elasticities for rationed commodities. In Chapter III the variations of consumption with price are examined in greater detail, and the use of monthly data are discussed, together with the attendant problem of seasonal adjustment. The final chapter investigates the amount of liquor bought by different income groups. The whole work is developed from a theoretical standpoint, and a careful use is made of regression and correlation techniques in the many applications. Everyone interested in demand analysis should read this book.]

Czech.

CHMELÁŘ (A.). Funkce práva v hospodářském planování. Prague: Ministry of Information, 1949. 8. Pp. 147. Kčs. 58.

[This is a most disappointing book. The title would lead us to assume that we should get a discussion of the function of law in a planned economy, a topic on which far too little has as yet been written. Instead of that we are treated to a hurried discourse on the Marxian attitude to law which does not even possess the grace of clarity. This is followed by a short review of recent economic history related to Czechoslovakia and some trite remarks on planning in other countries. The appendix to the book contains the texts of the statues and statutory instruments of importance to planners in Czechoslovakia. The author appears to appreciate that the problem of law in a planned economy raises such issues as that of personal freedom, the freedom to contract and the like, but somehow he never really gets to grips with them.]

DOLANSKÝ (J.). Svyrovnaným rozpočtem do pětiletky. Prague: Ministry of Information, 1949. 8. Pp. 59. Kčs. 9.

[This booklet contains the substance of the speech with which the then Czechoslovak Minister of Finance introduced the budget for 1949 in the Czechoslovak Parliament. In the introduction it is stated that this publication is to serve as a text-book of socialist public finance. This little book should be an eye-opener to those who may have felt that in a socialist economy such prejudices as fixed exchange rates, balanced budgets, stable currencies and the like would be discarded. Dr. Dolansky clearly shows how the need for investment finance has to be met in a socialist economy from state receipts and how important the balancing of the budget is if inflation is to be avoided. The close connection between the budget and the national plan is emphasised, and the use of budgetary policy in the class struggle is illustrated. The appendix contains tables giving details of the 1949 budget.]

PŮLPÁN (O.) and STŘÍBRNÝ (J.). Základy cenového práva. Prague: Orbis, 1949. 7. Pp. 516. Kčs. 180.

[This is a text-book dealing with the legal aspects of Government price-fixing and price control and with the measures taken against black-market operators.]

SIBLÍK (J.). Veřejné Finance Československa. Prague: Orbis, 1947. 8. Pp. 196. Kčs. 65.

[This is a text-book of public finance written in the Continental style; that is to say, the discussion is based on a description of the tax-system of the country, economic issues being completely disregarded. Within the limits set by its approach it is a competent enough work.]

SIBLÍK (J.). Colmova sociologická theorie státního hospodářství. Prague: Knihovna sborníku věd právních a statnich, 1947. 8. Pp. 122. Kčs. 70.

[Prof. Siblík's purpose in writing this book was a more ambitious one than that in the book mentioned above. He aims in this work at restating the nature of public finance which he does by a severe criticism of Prof. G. Colm's book: *Volkswirtschaftliche Theorie der Staatsausgaben.* Prof. Siblík subscribed to the teleological approach to economics and believes thus in analysing problems of public finance on functional lines. The book suffers from an over-reliance on authorities who are quoted copiously so that it is often difficult to ascertain what the author's personal views are. The very method of approach followed by the author makes detailed criticism of the book difficult, since unless one has a copy

of Colm's book at hand, Prof. Siblík's arguments are not easy to follow. The absence of any kind of index is a further defect on a book of this type.]

SPÁČIL (B.) and Others. Mimořádné dávky. Prague: Orbis, 1949. 7. Pp. 293. Kčs. 142.

[This is a commentary on the Act of October 31, 1947, by which a kind of "Special Contribution" was imposed on certain classes of property owners and high-income recipients in Czechoslovakia. The purpose of this levy was to obtain funds for the payment of subsidies to farmers who had suffered heavy losses as a result of the drought in the summer of 1947. Following the political changes of February 1948, the Act was amended and the rates payable substantially increased in line with the known policy of the Communist party.]

Spanish.

CARANDE (R.). Carlos V y sus Banqueros: la hacienda real de Castilla. Madrid: Sociedad de Estudios y Publicaciones, 1949. 10″. Pp. xvi + 635.

[This study of the Treasury of Spain during the reign of Charles V, its sources of revenue and its expenditure, is the first work published by the "Sociedad de Estudios y Publicaciones" of Madrid.]

South American.

BASTOS (H.). A Economia Brasileira eo Mundo Moderno. S. Paulo: Livraria Martins Editora, 1948. 9″. Pp. 290.

[A geo-political examination of the structure of the Brazilian economy.]

JANSENSON (S.). Banco del Comercio Exterior Argentino. Buenos Aires: The University, 1948. 10″. Pp. 101.

[A discussion of the objectives and functions that might be performed by a Foreign Trade Bank of the Argentine.]

Nueva Organizacion Bancaria Nacional. Buenos Aires: The University, 1948. 9″. Pp. 31.

[New legislation in March 1947 gave new objectives and responsibilities to the Central Bank of the Argentine Republic. This pamphlet sets out the changes in objectives and methods.]

Official.

BRITISH.

CHARLES (ENID). The Changing Size of the Family in Canada. Census Monograph No. 1. Ottawa: Edmond Cloutier, 1948. 9½″. Pp. xiv + 311. 75 cents.

[To be reviewed.]

DEPARTMENT OF AGRICULTURE. Agro-Economic Survey of the Union. Survey conducted and data compiled by the Division of Economics and Markets. Pretoria: Government Printer, 1948. 9½″. Pp. 192. 1*s*.

[This is the first of a series of reports arising from the agro-economic survey of the Union started in 1936. The survey is designed to aid our understanding of the agricultural structure of the country. It starts with an attempt to analyse the various factors—physical, biological, economic and historical—which determine the character of agriculture in different agro-economic areas and, so far as possible, to delimit those areas. By the end of 1941 some thirty areas had been delimited and grouped according to geographical position, and according to similarity of general features and present farming practice. This report covers the six highland crop-production areas. It is hoped soon to publish reports on fourteen further areas. The report includes for each area a mass of invaluable detailed statistical material covering rainfall, temperature, soil, vegetation, farming systems, land utilisation, capital investment, crops, stock farming, labour supply, indebtedness and other general economic and social factors.]

DEPARTMENT OF TRADE AND COMMERCE. Private and Public Investment in Canada. Outlook 1949. Ottawa: King's Printer, 1949. 9½". Pp. 51.

[Gross investment is estimated to be about $4.8 billions in 1949 compared with $4.5 billions in 1948, an increase of 7%. Of this $3.3 billions is estimated new investment and $1.5 billions is repair and maintenance.]

DEPARTMENT OF TRADE AND COMMERCE. Supply of Building Materials in Canada. Outlook 1949. Ottawa: King's Printer, 1949. 9½". Pp. 23.

[A better flow of materials and fewer serious shortages are expected in 1949 than in 1948.]

Investment and Inflation. With special reference to the immediate post-war period. Canada, 1945–1948. Canada: Ottawa, 1949. 13". Pp. 290.

[This is a large roneo-ed report prepared in the Economic Research Branch of the Department of Trade and Commerce of Canada by Dr. O. J. Firestone with the assistance of Mrs. J. M. Nicholson and Mr. D. J. Daly. It analyses the place of investment in the Canadian economy, its fluctuations after the past twenty years, the available resources, the trends of cost, the contribution to the standard of living, the attitudes of businessman, consumer and government, and finally the post-war investment boom. The author expects a continuation of the high 1948 level of investment for two or three years at least.]

NATARAJAN (B.). A Scheme of Crop Insurance for the Province of Madras. Madras: Economic Adviser to the Government of Madras, 1949. 9½". Pp. 26.

[This paper examines the possibilities of applying to Indian conditions the techniques of crop insurance which have been developed in America. The desirability of "protecting the individual cultivator against the hazards of drought, floods, hail, fire, excessive rainfall, winds, plant diseases and insect pests" is not in question. What to a layman seems much more difficult is how it can be made possible to distinguish the consequences of these catastrophes from the consequences of indifferent cultivation and insufficient energy in countering these disasters. In the United States, apparently, the insured farmer is protected only against a loss in yield either below 75% or below 50% of his average yield, at his option. Various other problems are here discussed. It is suggested that there be insurance only of produce and not of price; that insurance be started for certain staple crops only, but covering as wide an area as possible and not only those prone to disaster; that it be made compulsory; that the levy be based on a premium of one-twentieth of the production; that the responsibility of operation be placed upon a Public Corporation. It will be interesting to see whether this scheme makes further progress.]

The National Income of Jamaica for 1943, 1946. Jamaica: Central Bureau of Statistics, 1948. 13". Pp. 78. 2*s.* 6*d.*

[This is a roneo-ed report on the national income of Jamaica in 1943 and 1946. It is based on an earlier work by Prof. Bonham and Miss Phyllis Deane. The Island Statistician in a Foreword holds out hope that an annual estimate will be made in future if circumstances permit. Mr. Morais, the Assistant Statistician, who is responsible for this estimate, has been able to use a good deal of additional material, beyond that available to the earlier investigators. He has produced a fine and scholarly piece of work on which all concerned are to be congratulated.]

Studies in Official Statistics, No. 1. The Interim Index of Industrial Production. London: H.M. Stationery Office, 1949. 8½". Pp. 52. 1*s.*

[To be reviewed.]

UNION OF SOUTH AFRICA. Social and Economic Planning Council. Report No. 11. Economic Aspects of the Gold Mining Industry. Pretoria: Government Printer, 1948. 9½". Pp. 64. 6*s.* 6*d.*

[This is a report of first-class importance. It represents an authoritative attempt to re-assess the place of gold-mining in the economy of South Africa in

the new post-war setting created by changed prices and costs, the Bretton Woods agreement and other changes. It faces not only the short-term but also the long-term problems of the industry. It attempts to estimate the future of the Witwatersrand Field and the potentialities of the Orange Free State Field. It seeks to face the even longer-term problems of the industry's ultimate decline and of State policy in relation to declining mining areas.]

UNION OF SOUTH AFRICA. Summary of Report No. 11 of the Social and Economic Planning Council entitled "Economic Aspects of the Gold Mining Industry." Pretoria: Government Printer, 1948. 9½". Pp. 12. 1*s*.

[A short summary of the report noted above.]

DUTCH.

SMULDERS (A. M. F.) and MASSIZZO (A. I. V.). Consumptieniveau en Inkomensverdeling. The Hague: Centraal Planbureau, 1949. 9". Pp. 11.

STUVEL (G.). Analyse van een nationaal Budget. The Hague: Centraal Planbureau, 1949. 9½". Pp. 32.

[These are the first two of a series of reprints of articles, edited and produced in the Central Planbureau under the direction of Dr. Tinbergen by members of the staff of the organisation. As may be expected they are both scholarly and thorough pieces of work, embodying original ideas as well as authoritative statistical material.]

CZECHOSLOVAK.

Průběh plnění hospodářského plánu. Prague: Ministry of Information, 1949. 8. Pp. 95. Kčs. 47.

[This is a continuation of the series of reports dealing with the progress of the Czechoslovak economy under the two-year plan. The story is now brought up to the third quarter of 1948.]

První pětiletý hospodářský plán Ceskoslovenské Republiky. Prague: Ministry of Information, 1949. 8. Pp. 277. Kčs. 64.

[In this volume there appear the addresses given by the Czechoslovak Prime Minister and by some of his colleagues on the occasion of the introduction of the Five Year Plan Bill in the Czechoslovak Parliament. The texts of the Act itself and of the Government memorandum which accompanied the Bill are given in the appendix. The Act enumerates the general targets to be attained by the various industries by the end of 1953. The Government will, by order, lay down detailed quarterly programmes for the guidance of the various sectors of the country's economy. It is interesting to note Section 42 of the Act which authorises the Government to regulate by order even matters which would otherwise require the passing of an Act of Parliament.]

EGYPTIAN.

Cereals Consumption in Egypt. Statistics by Mahmoud Abdel Karim. Introduction and Conclusions by J. I. Craig. Cairo: Government Press, 1947. 10½". Pp. 18.

[The purpose of this paper is to provide some of the background material on which an agricultural policy can be framed. The broad conclusion is that, over the period 1914–41, population has grown about 1·15% per annum, the area under cereal crops has grown about 0·25% per annum, production of cereals has grown about 0·38% per annum and consumption of cereals has grown about 0·26% per annum. Thus the population of Egypt is being progressively less well fed.]

INTERNATIONAL.

ECE in Action. The story of the United Nations Economic Commission for Europe. United Nations : Department of Public Information, 1948. 9″. Pp. 47. 30 cents.

[A popular account of the work of the Economic Commission for Europe, which describes with illustrations the progress made in Europe in the various fields in which the Commission has been interested.]

Inter-Allied Reparation Agency. Report of the Secretary General for the Year 1948. Brussels : Inter-Allied Reparation Agency, 1949. 9½″. P. 98.

[The work of the Reparation Agency in 1948 was immensely complicated by indecision as to the future of deliveries. Thus, it was extraordinarily difficult to judge the probable size of the pool to be divided or whether particular allocations of plants might or might not turn out to be equitable. This report records the work done and in valuable tables shows what each receiving country has had. There is also a complete list of plants made available to the agency and allocated by them. In the vast majority of cases the plants concerned are pure munition plants.]

INTERNATIONAL LABOUR OFFICE. Labour Courts in Latin America. Geneva and London: International Labour Office, 1949. 9½″. Pp. v + 110. 3*s*. 9*d*.

[This study compares and contrasts the machinery for settlement of labour disputes in the United Kingdom, France, Sweden, Germany and in the United States and Canada, with the machinery that has been created in Latin America. The latter are described in full detail, and a proposed resolution concerning Labour Courts is attached.]

Technical Assistance for Economic Development available through the United Nations and the Specialized Agencies. Lake Success : United Nations (London : H.M. Stationery Office), 1949. 9″. Pp. 102. 4*s*.

[This booklet summarises the types and sources of assistance provided by the United Nations and its specialised agencies. The available assistance is analysed under the broad heads of agriculture, forestry, fisheries, other physical resources, education and technical training, labour and employment, health, nutrition, safety, public administration, finance, currency and statistics.]

UNITED NATIONS. Catalogue of Economic and Social Projects. No. 1. Lake Success : United Nations (London : H.M. Stationery Office), 1949. 9″. Pp. vii + 271. 10*s*.

[An analytical catalogue of the work proceeding under the United Nations and its specialised agencies in the fields of economics and social problems. Some 739 items are listed, and each is given a few lines of description, indicating in most cases the circumstances in which the work was instituted, its approximate content and probable date of completion.]

UNITED NATIONS. Check List of United Nations Documents. Part 6h : No. 1. Fiscal Commission, 1947–1948. First Session. Lake Success : Library Services, Department of Public Information, United Nations, 1949. 9″. Pp. 11. 2*s*. 6*d*.

UNITED NATIONS. Check List of United Nations Documents Part 5 : No. 1. Economic and Social Council, 1946–1947. First to Fifth Sessions. Lake Success : Library Services, Department of Public Information, 1949. 9″. Pp. lii + 230. 25*s*.

[Lists of documents with brief indication of the subject and content.]

UNITED NATIONS. Research and Planning Division, Economic Commission for Europe. Economic Survey of Europe in 1948. Geneva : United Nations, 1949. 11″. Pp. xii + 288. $2.50.

[To be reviewed.]

UNITED NATIONS. International Tax Agreements. Lake Success: United Nations (London: H.M. Stationery Office), 1949. 10″. Pp. 461. Paper 20*s*. Cloth 25*s*.

[This volume brings up to date the six-volume *Collection of International Tax Agreements and Internal Legal Provisions for the Prevention of Double Taxation and Fiscal Evasion*, published by the League of Nations from 1928 to 1936.]

UNITED NATIONS. Major Economic Changes in 1948. Lake Success: United Nations (London: H.M. Stationery Office), 1949. 11″. Pp. vi + 74. 5*s*.

[The purpose of this publication is to make generally available the preliminary results of the more comprehensive economic survey of the world situation in 1948 which is in preparation. It contains a great deal of valuable statistical and factual material with preliminary world totals in most cases.]

UNITED NATIONS. National Income Statistics of Various Countries, 1938–1947. Lake Success: United Nations (London: H.M. Stationery Office), 1949. 11″. Pp. vi + 150. Paper 7*s*. 6*d*. Cloth 12*s*. 6*d*.

[To be reviewed.]

UNITED NATIONS. Public Debt, 1914–1946. Lake Success: United Nations (London: H.M. Stationery Office), 1948. 11″. Pp. 159. 12*s*. 6*d*.

[A tabulation of the public debt outstanding and the debt service of all the principal countries of the world. The data are presented wherever possible in two tables. The first shows for each year from 1914 to 1946 (and where possible for 1947) total public debt, domestic long-term debt, domestic short-term debt, foreign debt, interest and redemption payments. Price movements and exchange rates are added for convenience. In the second table are shown the most important obligations incurred since 1928 and where possible the purpose, amount outstanding, nominal rate of interest, date of issue and date of maturity of each loan. This is an invaluable work of reference.]

UNITED NATIONS. Review of International Commodity Problems 1948. Lake Success: United Nations (London: H.M. Stationery Office), 1948. 10½″. Pp. v + 42. 2*s*. 6*d*.

[This is the report for 1948 of the Interim Co-ordinating Committee for International Commodity Arrangements. After a brief general survey, the current situation for each of the principal primary commodities is described and analysed.]

UNITED NATIONS. What the United Nations is Doing for Non-self-governing Territories. Lake Success: United Nations, 1948. 7½″. Pp. 24. 15 cents.

[A popular account of the United Nations machinery for supervising the administration of Non-self-governing Territories.]

UNITED NATIONS. What the United Nations is doing for Refugees and Displaced Persons. Lake Success: United Nations, 1948. 7½″. Pp. 16. 15 cents.

[A popular account of the problem of the Displaced Persons. At the end of 1948 there were still some 705,000 refugees in Europe dependent on the International Refugees Organisation. During the year mid-1947 to mid-1948, there were 204,000 refugees settled. The largest number (nearly 70,000) came to the United Kingdom. It is hoped to settle 380,000 during 1948–49. But there is a hard-core, of about 184,000 which may be left stranded in Europe unless certain nations are more liberal in their standards of admission.]

THE ECONOMIC JOURNAL

DECEMBER, 1949

ON STICKING TO ONE'S LAST[1]

THREE years ago our then President, Mr. Hawtrey, in a challenging address entitled "The Need for Faith,"[2] commented on the loss of self-confidence which had overtaken the race of economists. This he attributed to their lack of faith. Faith in the utilitarian calculus, faith in the invisible hand, had wilted away, and nothing had taken its place. Nothing short of an enlargement of the scope of economics to embrace *all* the elements of the good life, so I took his final sentences to mean, could get our science back upon its feet, and restore to its practitioners self-confidence in addressing their fellow men.

Now I do not know that I myself had noticed any particular diffidence on the part of my colleagues about tendering advice. On the contrary, I think I should say that whereas in the old days economists were generally content to indicate the *directions* in which action might be taken to promote the public good, they have latterly become much more confident about reducing their counsel to precise and quantitative terms. It is true that some nasty tosses have been taken. You will remember those eight million American unemployed whom the operation of the "consumption-function" ought to have churned out in 1946 but did not; those targets for the man-power to be engaged in sundry British industries which never looked much like being hit, and which seem to have been quietly returned to store. But on the whole the practitioners of the art of predictional arithmetic appear to be pretty good—as any true-born Briton, American or Dutchman should be—at coming up smiling, explaining that the connection between their variates must sometimes be taken to be stochastic rather than functional[3] (this, as you know, is now the dignified way of saying that it is all largely a matter of guess-work after all), and returning to the charge.

[1] Presidential Address at the annual meeting of the Royal Economic Society on June 23, 1949.

[2] ECONOMIC JOURNAL, September 1946, pp. 351 ff.

[3] Prest, "Some Experiments in Demand Analysis," *Review of Economics and Statistics*, February 1949, p. 34.

That, however, is by the way. What I want to discuss is whether the old view that the economist as such is concerned only with certain parts or aspects—the more material parts or aspects—of human welfare is really out of date; whether the complete integration of economics with ethics which Mr. Hawtrey appears to hold to be necessary for the recovery of the self-esteem of the economist is really either possible or desirable. I cannot persuade myself that it is.

The first thing to be said in this connection is this. As I understand it, the concept of measurable utility, after going through a rough patch, has now been pretty firmly re-established on its throne. I know that put in this way this is a provocative statement, and that I am too incompetent mathematically to be at all a reliable guide in such matters; but I am not going to be deterred from telling you, very briefly, the story as I see it. Some decades ago, under the influence of Pareto, it became fashionable to maintain that all the facts of the market-place could be explained by supposing simply that people prefer one situation to another without making any assumption about the magnitude of their preference. That being so, why should a man of science look any further? If, the cardinal measurement of utility being thus ruled out, the baby of Economic Welfare as an Objective of Policy were found to have slipped out with the bath-water, that couldn't be helped—indeed, it might be good Georgian riddance of bad Victorian rubbish.

In fact, however, so it seems, those who argued in this way were not always quite consistent; they could sometimes be caught out assuming not only that people prefer one situation to another, but that they prefer one *change in situation* to another *change in situation*; and that is a very different pair of shoes, with very different implications. Up this rope-ladder there slipped one night, led by Professor Hicks, the gallant members of E.W.R.R.A.—the Economic Welfare Reprieve and Rehabilitation Association—who rescued the baby. The price of rescue was that the bath-water should be used to christen the baby with a whole string of new names—preference, indifference, marginal substitutability and the like—which were believed, erroneously in my poor view, to be clean of the offensive odour of utility which Pareto had left hanging about the house. On the whole, the price of the baby's rescue has been quietly paid, and our text-books are now full of new jargon and new curves. And the baby, bursting with national milk and black-currant juice, flourishes as never before. But you should see how the

dear little fellow dimples up with delight when some of us, rather secretly, call him by his old names—Utility, Satisfaction and the like—and confide to him our private doubts whether he ever really needed all the skilful rehabilitation which he has received.

However that may be, what I am trying to suggest is that the concept of economic welfare is solid and substantial enough to give the economist plenty to think about, to argue about and, if he can make up his mind, to tender advice about, without feeling constrained to put his head in a bag, still less a gas-oven, because he does not feel himself to have mastered the whole problem of good and evil. After all, it is surely still true that, in Adam Smith's words, "the subdivision of employment in philosophy, as well as in every other business, improves dexterity and saves time." But I don't deny that there are difficulties about this policy of sticking to one's last, and I will try to say a little about some of them.

The first is that there are certain things which figure partly as a means to economic welfare and partly as alternative ends in themselves. One of these, as Hawtrey has so often reminded us, is National Power and Prestige; another is Occupation or Employment, now rightly regarded as a good in itself as well as a means to the earning of income. With how much respect is the economist to regard these personages when they insist on slipping outside his counting-house and setting up shop on their own? Is he to try to whistle them back into his fold? I think he will be wiser to admit their independent status, and to recognise therefore that practical wisdom will sometimes prefer their claims to those which he puts forward on behalf of his own child. By so doing he will safeguard rather than surrender his right and duty to act as a watchdog for economic welfare in the stricter sense. Provided he is contented in the last resort to be over-ruled, let him bark with a loud voice and a clear conscience when he thinks he sees national resources being squandered in over-ambitious foreign policies, or this industry and that being conducted by obsolete methods or in unsuitable places lest A and B and C, even though duly supported at the public expense, should suffer the mental pain and humiliation of finding their work unwanted.

Next, what is the economist to do if he is told that some measure or institution which he commends as a means to economic welfare conflicts head on with the immutable principles of natural justice? Suppose, for instance, he concludes, with Edwin Cannan, that "the most powerful lever for increasing the

opportunities of women [in industry] is taken away if they are not to do the work cheaper." Or suppose that, venturing to differ from the view recently expressed in our JOURNAL [1] by Mr. Kahn, he holds that workpeople commonly undervalue the risks of insecurity of employment, and that wage differences remain accordingly the most effective way of promoting the flow of labour from areas of low demand and high supply to areas of high demand and low supply. Must he refrain from putting these points on the grounds that justice demands that equal work should always and everywhere command equal pay, so that any wage-gap which is imprudent enough to raise its head ought to be immediately ironed out by social action, whether or not it has had time to do its economic job?

Surely not; surely one of the economist's most obvious duties is to attempt to disentangle *useful injustices* from useless or harmful ones. Working women may be poor; but it may, nevertheless, on balance promote economic welfare that they should be paid less than working men. On the other hand, the owners of steelworks may be rich; but it may, nevertheless, be inimical to the generation of economic welfare that those capitalists who organise the production of something manifestly supremely useful, even according to the Socialist State's own austere criteria, should be treated more harshly than capitalists in general. The world is full of these uncomfortable possibilities; and if the economist can do something to elucidate them he will have done a useful job. If, in the face of his findings, the Sovereign People then deliberately decides that Justice is at all costs to be preferred to Welfare, or even that the Soaking of the Rich is at all costs to be preferred to both—well, that is that.

A rather more complicated problem faces the economist if he judges that a certain course of action *would* promote economic welfare if public opinion would accept it, but will damage even economic welfare, which it *is* his business to consider, if public opinion, as may for the moment seem more probable, resorts to sabotage to compass its defeat. It is no good breaking one's head against brick walls; great is the temptation to cry

> Let the long contention cease!
> Geese are swans, and swans are geese.
> Let them have it how they will!
> Thou art tired; best be still.

Yet I feel sure that if the economist is in too much of a hurry to pose as the complete man—too anxious to show that he is

[1] March, 1949, p. 9.

duly sensitive to "the changed temper of the age" and has taken full account of what is "politically and psychologically possible," he will be in danger of betraying his calling. Twenty-five years ago it needed some spirit on his part to develop the case for deficit financing as a remedy for trade depression without being prematurely silenced by the argument that it would scare the business man and so do more harm than good. Now the boot is on the other foot, and it takes some spirit to state clearly and fairly the case for wage reduction as a cure for unemployment or an adverse balance of payments, or the case for the curtailment of subsidies and the overhauling of social services as a solvent of inflationary pressure, without being prematurely silenced by the argument that nowadays the Trade Unions would never stand for such things. Perhaps they wouldn't; but that is no reason for not following the argument whithersoever it leads. But it is easier flogging dead horses than taming live ones; and some of those who display great retrospective gallantry against the fallacies and obscurantisms of yesterday seem to me somewhat over-hasty to make their peace with those of to-day.

You will see that my ambitions for my profession are not quite so exalted as my predecessor's. I do not want the economist to mount the pulpit or expect him to fit himself to handle the keys of Heaven and Hell. I want him to be rather brave and rather persistent in hammering in those results achieved within his own domain about which he feels reasonably confident, not too readily reduced to silence by the plea that this, that or the other is ruled out of court by custom, or justice, or the temper of the age. But in the last resort I want him, too, to be rather humble—humbler than some of his great predecessors were disposed to be—content to bow to the judgment of the prophets or even the men of affairs if he is convinced that his case has been properly understood and fairly weighed. In fine, I like to think of him as a sort of Good Dog Tray rather than as a Priest for Ever after the Order of Melchizedek.

D. H. Robertson

Trinity College,
Cambridge.

ECONOMICS: YESTERDAY AND TO-MORROW[1]

The natural hesitation which I feel in addressing you as President of this section is perhaps slightly alleviated by the reflection that I am now (I believe) entitled to speak to you—if I may lapse into French—as the doyen among the Professors of Economics in these islands. It is an honourable position which I owe solely to the lapse of time—a process which ultimately brings distinction to the meanest centenarian, as a reward for the somewhat negative virtue of not having dropped out by the way. It is rather like Interest (or at least what Interest used to be before 1935), the Reward of Waiting, attainable even by the mentally deficient, who may doubtless qualify by virtue of "long lacking." It is not far short of fifty years since I was first introduced to the study of Economics on a mixed diet of the small Marshall and John Stuart Mill; I have now been professing since 1921. In this section we are not all "academics" (a horrid word); but perhaps we Academics give a flavour to the proceedings. In the circumstances I think it may not be inappropriate if to-day I speak to you as a Victorian Professor on his last legs. You may consider that in the string of platitudes which I shall doubtless address to you, I am confusedly making a death-bed confession of error; or (if you are more charitable) you may regard me as doing my best to understand sympathetically how, in the very different climate in which he will carry on his activities, my more enlightened successor may regard me.

We could doubtless learn a great deal of the continually changing view of what Economics is supposed to be, and what purpose its study is supposed to serve, by the simple device of reading in chronological order the definitions of Economics given by its leading exponents. But this is a task which to-day I may not perform on your behalf. A random stab here and there must suffice. Adam Smith is entirely explicit in one passage frequently quoted in better days: "Political Economy, *considered as a branch of the science of a statesman or legislator*, proposes two distinct objects." These objects do not concern us at present; but you will remember that they were, first, to provide a plentiful sub-

[1] Presidential Address, delivered before Section F of the British Association on September 2, at Newcastle-upon-Tyne.

sistence for the people, or, as he at once added (suddenly remembering how omnipresent is the danger of misrepresentation), "to enable them to provide such a subsistence for themselves"; and, secondly, to provide a sufficient revenue for the State. But the essential point to note is that for Adam Smith, Political Economy was a branch of the science of a statesman; in other words, it was inextricably intertwined with politics and government, concerned with getting things done. I do not think that the idea of there being such a thing as an "economic law" ever penetrated the crass intelligence of Adam Smith; I doubt whether the word "Law" in this sense occurs anywhere in *The Wealth of Nations*; but when you come to Ricardo, it is hardly too much to say that the primary function of the Economist is to detect and lay bare "Economic Law." Indeed, the characteristic feature of the early part of the nineteenth century was the conscious effort to transform Economics into a wholly independent scientific discipline, establishing laws or generalisations, while remaining perpetually and eternally neutral in a world of conflict. You will find a sufficiently beautiful expression of this simple view in Senior, who chides previous writers for their incorrigible tendency to wander into what he calls the far more interesting, but far less definite, fields by which the comparatively narrow path of Political Economy is surrounded. It is an arresting simile. The economist is a dumb ox, condemned to follow a narrow path which leads through attractively flowery, but not very definite, meadows; but woe to him if he looks over the hedges. "His conclusions, whatever be their generality and their truth"—it is Senior who is speaking—"do not authorise him in adding a single syllable of advice." Much later in the century you will find the same point of view expressed by Cairnes, with comparisons which I find not too happy: Political Economy (he said) stands "neutral between competing social schemes; neutral, as the science of Mechanics stands neutral between competing plans of railway construction . . .; neutral, as Chemistry"—and this is what sticks in my throat—"stands neutral between competing plans of sanitary improvement."

Indeed, in an era of *laissez-faire*, the divorce between economics and politics is perhaps inevitable. Let us for the moment accept the familiar travesty of *laissez-faire*, and assume that it postulates that the ideal State should confine itself to doing nothing, and doing it rather well; but if that is even an approximation to the implications of *laissez-faire*, then it is difficult to see how Economics, however defined, can be subservient to Politics. For

though there may be a certain Art in doing nothing, it may be questioned whether there is a corresponding Science.

Doubtless it was always realised that Economics had its neighbours, that there were frontiers and borderlands; and those of us who were properly brought up and learned our "Scope and Method" from Dr. Neville Keynes, at one time in our lives knew all about the ties between Economics and the neighbouring tracts of country occupied by Political Science, Ethics, Psychology, Jurisprudence and many more. Doubtless also the most resolutely recluse economist perpetually violated his own professed principles; for it is as difficult to prevent an economist from giving advice as it is to prevent the notional proverbial woman from talking. Yet, broadly, despite obvious lapses, it is true that the nineteenth century was in the main a period of specialisation, when the economist tried to keep himself to himself, and to pursue the peculiar problems of his own specialism.

It is almost a commonplace to-day that the era of specialisation has for the time being ended; that the old frontiers have been largely obliterated, and that in the next generation the economist will have to be much more than an economist. Perhaps his primary task will be to view his Economics in relation to all the other so-called social sciences, and thereby to effect a new synthesis. Let us consider for a moment, very briefly, some of these increasingly non-existent boundaries. The first and most complete disappearance of a frontier is, I think, that between Economics and Politics. For myself, I regard this as having always been a very blurred and indeterminate dividing line; but that is merely a personal point of view. To-day it is possible to say more emphatically than at any time since the dominance of mercantilist ways of thinking, that practically every economic problem has become a political problem, and that most, if not all, political questions have their economic penumbra. The more or less complete fusion of economics and politics can be explained on various grounds, even if the various explanations very largely represent different aspects of the same fundamental tendency. You may say that it is due to the coming of the Welfare State; you may say that it is due to the eclipse of *laissez-faire*. In an age which has, apparently, unbounded faith in the competence of the State to do everything and to provide for everything, the decision in economic problems tends to pass to the Government, and economic discussion finds its last asylum in the House of Commons. As an influence tending to the fusion of Economics and Politics, you may attribute something to the delayed impact of Marx, for

whom Economics was a first stepping-stone to revolution, which is political, if anything is. The extent to which Economics and Politics have to-day become intertwined is seen in the fact that what is probably the most fundamental, as it is the most ubiquitous, problem of these times is precisely that of determining the limits of the economic activity of the State—what we expect the State to be, and what we expect it to do in economic matters.

The second frontier which has obviously been trampled upon —or perhaps should be trampled upon even more that it is—is that between Economics and Psychology. We ought never to forget that we are always dealing with human beings, though perhaps we sometimes tend to do so when we wrap ourselves in a cloud of differential equations. But if we are dealing with humanity, then we ought to know everything that there is to be known about the curious behaviour of this most curious human beast. We should remember that we are never far removed from a suffering human heart. Here possibly, as I sometimes think in moments of intellectual pessimism, will for ever be the weak point in Economics, and indeed in all the social sciences. For the heart of man is unsearchable, and his behaviour can never be foretold, moved as he not infrequently is, and moved surprisingly, by motives of which he is himself unconscious. Strictly speaking there is no such thing as Labour, glorified with a capital "L," apart from individual labourers who all toil and sweat at different jobs, and display an infinite variety of temperament, disposition, endowment and circumstance. There is also no such thing as Capital, apart from the individual owners and controllers of the means of production; and these again, I need hardly tell you, are a motley crowd.

The older generation suffered much ridicule—undeserved, as I think—because of what was supposed to be the undue simplification of their underlying psychology. But indeed there is something to be said for them. They realised that if they were to reason about Man, they must first define him; just as, before reasoning about triangles, you must know what a triangle is. And as a result there emerged, or was supposed to emerge, that ridiculous, bloodless scarecrow, known as the "Economic Man"—the man whose every action was determined by a careful balancing of economic considerations. Yet, if he existed anywhere, I doubt not that he was a most exemplary citizen, observing the laws both of God and of Man. He remembered the Sabbath day to keep it holy, being advised by his medical attendant that one day's rest in seven would increase his productivity in the remaining six.

He honoured his father and his mother, knowing well how wide is still the testamentary discretion which the law allows to parents. Of the grosser offences he was guiltless, being well aware that a period of incarceration would effectively debar him from the profitable service of his fellows. If he had any weakness, it was doubtless a tendency to covetousness, but such slight shortcoming as he may have been guilty of in this direction was, he felt, no more than was inevitable, if he were to comply with the Pauline injunction to covet earnestly the best gifts. Such, supposedly, was the Economic Man, and though he had his virtues, "Who would not laugh if such a man there be?" Nevertheless, looked at more closely, what the older economists were trying to do was, in their own words and for their own purposes, to "make abstraction" of those qualities which did not affect Man in his acquisition or consumption of wealth. Political Economy was concerned, such was Mill's view, with Man solely as a being who desires to possess wealth, and who can make efforts to that end. Other qualities of the human beast must be ignored, except in so far as they are "perpetually antagonising principles" to the desire for wealth. And of such perpetually antagonising principles, there are two. In a very fine phrase, they are "aversion to labour, and the desire of the present enjoyment of costly indulgences." Man, in short, is a lazy brute, and he wants to have a good time *now*; and if we are honest with ourselves, in our private confessionals, we will acknowledge, each speaking for himself, that it is at least a part of the truth, even if we should prove incapable of clothing the confession in the impeccable language of John Stuart Mill. But it was never meant to be a complete picture: still less did that saint of Rationalism intend it to be a picture of the ideal man. Mill, in effect, said: "I cannot tell you what Man is; but this, alas, is a bit of him." And also implicitly the Economic Man was a warning regarding the limitations of the validity of economic conclusions. In a sense Mill also said: "I am talking of one side of Man; but he has other sides, and therefore you had better be on your guard." In these days when we do so much to encourage research, I should like some modern John Bunyan to supplement *The Life and Death of Mr. Badman* by a companion volume on *The Life and Death of the Economic Man.* The research student who is conspicuously distinguished by aversion to labour will find a great deal of the necessary biographical detail in Dr. Hennipman's imposing volume. For if the Economic Man is not dead, at least we seem to have buried him. Yet incomplete and defective as this ogre may have been

as an explanation of human action, he was at least an acknowledgment that you do need a psychological foundation. I am not sure that we are further on to-day. If anyone were to ask me what are the psychological assumptions of modern economics, I should be constrained to give a dusty answer. Perhaps the ghost of the Economic Man, that perturbed spirit, still stalks our ramparts. But of one thing I am certain: a structure of economic theory that is not based on sound psychology is a house without foundation. And therefore your economist must be a psychologist—of a sort.

I must deal more briefly with some of the other disappearing frontiers. In my youth there was much talk of the relation of Economics to Jurisprudence. Apart from all that was then said, about it and about, I suggest that in the new world there are overwhelmingly stronger reasons why every economist must become something of a lawyer. In the Welfare State, the law provides the machinery for the economic activity of the State; the machinery rests on and is modified by the law. To-day the economist must read and, so far as that is practicable, understand a considerable section of the enactments that are being incessantly disgorged from Westminster—even if Members of Parliament themselves are exempted from this exhausting task. It used to be said that the best source-book for a study of mercantilism could be compiled from the Preambles of Acts of Parliament, in days when Acts of Parliament and their preambles were still models of reasoning and of English style. To-day one of the chief sources for the economic tendencies of our times is in the Statute Book itself; and an economist must be at least of the competence of a hedge-lawyer to find his way about.

Need I say anything about Ethics, our nearest and our oldest neighbour? You will recall Marshall's saying that Economics is the handmaid of Ethics. Admittedly, handmaidens to-day are more of a notional race of beings than they were in Marshall's life-time; but the idea is clear and its justification incontestable. Let us admit, even in this Section, that Economics can never be an end in itself; by its very nature and from its birth it is doomed to be a subordinate, a younger sister, a handmaid to someone. At its best Economics is designed to disclose a means to the attainment of some end, to the realisation of some way of life, some vision or some ideal. It is for Ethics (we hope) to tell us what the good life is, what justice and equity are, what sort of an existence we ought to try to provide for ourselves and others—if it comes to that, how we ought to behave to each other, a question which not infrequently has curious economic infusions. But those who are

concerned with the means can hardly be denied the privilege of having some views on the end. It is, indeed, only in so far as we take some part in the ethical debate that our Economics can acquire a meaning, an inspiration and a driving force. If you ask me to fix a just wage, you must allow me to have some ideas about "justice." And I think that we economists should perpetually bear in mind that the framework of *The Wealth of Nations*—which we may conveniently take as the source of modern economics—was first presented to raw Scottish undergraduates as part of a course on Moral Philosophy. We economists were conceived in the study of a Professor of Moral Philosophy, and cradled in a Moral Philosophy class-room. Whether you believe in the laws of inheritance or in the potency of early environment, you can hardly deny that it is "natural" for an economist to be a moralist.

And having gone so far—Heaven help me!—may I go still farther and suggest that the economist may have to become something of a theologian? Or if for any reason you shy at some of the ordinary implications of the word "theology," let us say that the economist should aspire to a reasoned *Weltanschauung*—for there is always much wisdom in taking refuge in a foreign language, imperfectly understood. Doubtless, it is at times difficult to make sense of this world; yet I suppose it is what we are all trying to do. And unless we are prepared to regard ourselves merely as a company of irresponsible idiots dancing in the void, we must frame for ourselves, if only as a working hypothesis, some sort of view of the kind of cosmos which we inhabit, and of the manner of its governance. The economy of heaven may be dark, as one of our poets suggested, using a very familiar word in rather an archaic sense; but unless we can persuade ourselves that life in some way makes sense, the significance of our economics will likewise evaporate.

I have been led on to this, perhaps rather delicate, subject, because one of the most striking features in the economics of the Founders, above all in Adam Smith and Malthus, was the strong infusion of theology at the roots of their thought. *Laissez-faire* nowadays is a doctrine that has, apparently, fallen so low that, with few exceptions, there be none so poor as do it reverence. In an ignorant age, which to its disgrace has allowed Adam Smith to go out of print, it is commonly assumed to be a godless, damnable doctrine of selfishness and of "devil-take-the-hindmost." But in its origins, as represented by Adam Smith, it is something entirely different. For him the justification of *laissez-faire* is to

be found in the perfection with which the Almighty has done his job. Men are unwise and curiously planned—no doubt. But the Creator deliberately made men unwise in certain respects and planned them curiously in others, so that human weakness and folly might be powerful levers to make the great world accomplish its daily round. The folly of men, indeed, reveals the wisdom of God. It may not be popular doctrine in these days, but Adam Smith's answer to the race of planners would have been simple. He would have said that God had already done all the planning necessary, and that your bungling, earthly planners can, at best, merely upset the divine plan. Into these troubled waters I may not enter: I am merely concerned to remind you that if Economics grew out of Moral Philosophy, it is also true to say that in its modern origins, it relied on and drew strength from a system of Natural Theology.

Perhaps I have delayed you too long on this question of disappearing frontiers; I admit that I am tempted to consider one more example, recalling as I do with a fascinated curiosity a second-hand book catalogue I once received in which there was a section devoted to "Political Economy and Crime." But I do not press the point; though there may be something in it. Nevertheless, it is time to bring these conclusions together. The nineteenth century was an age of specialisms. To-day the boundaries between the Social Sciences (if we must use the phrase) have broken down. The economic problems to be solved present themselves inextricably embedded in a whole mass of relationships which cut across purely economic considerations, and involve all phases of the manifold problem of men living in society. I do not say that we must therefore cease to be economists. But more than ever, an economist, to be an economist, must be vastly more than an economist. You may recall one of the most memorable of Lord Keynes' asides, where he emphasises that the Master Economist must possess a rare combination of gifts: "He must be mathematician, historian, statesman, philosopher—in some degree. . . . He must study the present in the light of the past for the purposes of the future. No part of man's nature or his institutions must lie entirely outside his regard. He must be purposeful and disinterested in a single mood; as aloof and incorruptible as an artist, yet sometimes as near the earth as a politician." Such was Keynes' vision of the Master Economist; and to this model the rank-and-file economist should also (if it is not asking too much) endeavour to conform. He must be skilled in many fields; if he is merely an economist, he is damned.

In a world where we have removed the customs-barriers between ourselves and our neighbours—in which the economist, invading the field of Ethics confesses that he has nothing to declare—we shall of necessity pursue our studies in a somewhat different climate. May I approach what has always been a somewhat delicate question in the history of Economics, viz., the relation between pure theory and the direct observation and study of the raw material presented to us by this clamant world? Just as the individual professor of economics spends his life alternately neglecting his lectures and neglecting the world on which he lectures, periodically throwing a sop to his conscience by varying the field of his neglectfulness, so Economics itself has its periods of devotion to theory and to what, not very happily, is sometimes called "realistic studies." Doubtless what I am saying reflects my own limited tastes and equipment; yet I have a feeling that recently theory has been running away with us. It is in danger of becoming a field for airing and exercising our academic ingenuity. Take this question of "Value"—the central, indeed, at times the exclusive, subject of economic speculation, so much so that at one time Economics was renamed "Catallactics," though I rather think the new name was washed away in the course of the baptismal ceremony. We have discussed the subject of Value for a solid 2,000 years; but it may be doubted whether we have made much progress. Such advance as is periodically made seems, indeed, to consist largely in a dawning realisation of the inadequacy of the recently dominant theory. It may be that none of us knows—any more than Marx knew—what we mean by Value: and that in itself perhaps renders the formulation of a satisfactory theory of Value a matter of some difficulty. In my life-time, we have brooded on the margin, when brooding on the margin was still a fairly recent escape from the summation of past costs. More recently we have been sliding down curves of indifference, exchanging cigarettes against tots of rum, according to our varying individual tastes and preferences, or tobogganning over surfaces of indifference when we introduced a third commodity (chocolate) to render life almost unbearably complicated; and, I presume, ploughing our way through the fourth dimension, if we were so rash as to contemplate a world where insatiable Man demands four commodities. Not that I would deny or decry the place of theory, or indeed its inevitability and supreme importance. Man, among other things, is a questioning animal, and it is of the nature of the ruminator to ruminate and of the theoretician to theorise, in accordance with the will of God. And retrospectively,

if only as a key to the interpretation of history, nothing can be more important than theory, for in the last resort it is ideas that move men. Lenin rests on Marx; and Marx at least thought that he was a theory of Value. If you care to be fanciful—and I admit that you would be fanciful—you might contend that the Iron Curtain which to-day divides Europe has as its foundation-stone (if curtains may be allowed foundation-stones) a theory of Value which the West has discarded.

Yet I cannot help feeling that in the next generation of re-orientation there may be more important tasks than the elaboration of theory far above the heads of all but the experts, in fields, moreover, in which the experts have quite obviously considerable difficulty in apprehending the drift of the arguments advanced by their fellow-experts. We are privileged (if it is a privilege) to live in an era of intense economic excitement. Never was there a time when so many experiments were being launched in the economic laboratory. Never was there a time of such far-reaching institutional change. The whole structure of society, of government, of the machinery of administration is undergoing rapid and continuous transformation. Perhaps in these circumstances our first duty is to keep our eye on the Coal Board, and on the Ministry of Town and Country Planning—and much more; in fact, perhaps for the next ten years we shall be constrained to revert, somewhat but not overmuch, to a point of view resembling that of the Institutionalists.

In this new world where Economics and Politics are so closely entangled, and where the subject-matter with which we are concerned is so often a matter of dispute in party politics, the position of the economist, if he is to retain his professional integrity, is rather a difficult one. We may not be greatly admired; but, heaven knows, we are made use of. The time which Professors of Political Economy can spare from the neglect of their ordinary duties is in most cases swallowed up by service on Government committees. At the same time our chief function as teachers nowadays seems to consist in training up a race, not so much of economists as of economic advisers, who go forth to hold their own in Whitehall and elsewhere.

This trade or profession of Economic Adviser is one of the most interesting by-products of our new world; and I watch all economic advisers curiously. If we are experts, we ought without doubt to be able to say something worth listening to. But let us, just for a moment, be modest, and acknowledge that we do not possess the final answers, nor are we the repositories

of ultimate wisdom. There never was a more foolish question than that which I have had addressed to me: "Why don't you economists put the world right?" prefaced sometimes by the reproach: "Look what a mess you economists have made of the world!" One might, somewhat feebly, retort by asking why the lawyers, or the moralists, or the Church have failed to put the world right. For, so we hope, we are all employed on the same job. But probably there is a better answer than a vulgar *tu quoque*. If a combination of Aristotle, Adam Smith, Karl Marx, the Archangel Gabriel and Sir Stafford Cripps were to arise, and proclaim, with all the guile of Machiavelli, the distilled essence of economic wisdom, people would not necessarily act accordingly. The problem of government is essentially one of expediency; above all, it is concerned with the practicable, the very urgent question of how to keep going for the next six months. There is no point in offering the country the clotted cream of economic sapience, if Parliament and the electorate will refuse the draught. There is this amount of truth in the old doctrines of Senior and Cairnes already cited. The enunciation of a flawless theory of wages (if such could be formulated) will never still the passions which have given rise to a strike. And accordingly—I am on the point of speaking blasphemy!—the economic adviser should at times be able to forget that he is an economist, and indeed to realise that there may be occasions when he ought to forget his economics. He is doubtless an expert witness; but his chief value lies in the fact that he ought to be a sympathetic observer of the human scene, one whose awareness of certain aspects of life has been sharpened; one who knows what to look for; who knows what questions to ask.

So far I have been concerned in the main with yesterday and to-day; what about the economic climate of to-morrow and the day after to-morrow? We are moving, as we all know, to a world very different from nineteenth-century Victorianism. It follows that the economist's tasks and his problems may very well be different in the next generation. I need not tell you what are the promised characteristics of this new age, and of this new State. It is what, for convenience, is quite usefully described as the Welfare State, a State responsive to the material needs of all its subjects; providing complete and adequate security against all the sinister contingencies of life; abolishing want and unemployment; giving education up to University standard (and beyond) to all who desire to avail themselves of it. In short it will be what I recently saw described somewhat derisively—I am glad

it was by an American writer—as the Santa Claus State. I have also heard it depicted, with even more derision and cattiness, as a world in which the entire population will have breakfast in bed. It will also be a world in which the State, directly or at one remove, assumes responsibility for the conduct of the major basic industries; a world also in which economically the individual will have largely disappeared. Society, indeed, has already undergone a process of coagulation, so that, if we count for anything at all, we count solely as a member of our appropriate group. Moreover, let us not forget that these groups may have conflicting interests.

Now in such a changed world where many things, if not all things, will have been made new, the politico-economic problem may be very different from that to which we older people have been accustomed. By the politico-economic problem I mean the problem of how to live together (always a difficult matter), and how to keep things going. It may seem a perverse thing to say; but just as life in heaven (or in some heavens) may not be altogether easy, so possibly life in the agreeable world of the future may present peculiar difficulties of its own.

There are, I think, three ways in which we may manage to live together in the complete Welfare State: or perhaps it would be better to say that there are three preliminary conditions, any one of which, if satisfied, would enable us to do the trick. The first is that of relying on a degree of compulsion vastly greater than we have yet had the courage or the honesty to admit may be necessary. I am not now pointing out the horrors of the Road to Serfdom, or of what awaits you when you come to the end of the road. In its higher altitudes this is already a well-discussed topic. I confine myself to the superficial and indeed the platitudinous. A State cannot undertake to provide from under the counter whatever anyone may need unless simultaneously it sees that someone is putting under the counter what is required for the purpose. The State cannot promise every school-child a glass of milk at eleven o'clock, unless it has directly or indirectly the corresponding number of cows standing at command. May I refer you to John Ruskin, a writer whom ordinarily I would not commend for his economic insight? "Finally I hold it for indisputable that the first duty of the State is to see that every child born therein shall be well housed, clothed, fed and educated, till it attains the years of discretion." (So far, an excellent definition of the Welfare State, even if its concern with Welfare is limited to the years of indiscretion.) "But," he goes on, "in order to the effecting this the

Government must have an authority over the people of which we now do not so much as dream." It ought to be fairly obvious that the State cannot guarantee everyone against want, unless it reserves the right, if need arises, to take anyone forcibly and pack him off to Caithness or Cornwall to do whatever requires being done there. And sooner or later the time may, probably will, come when it will have to realise that it must not be too mealy-mouthed or timorous about the exercise of these powers of compulsion with which, on Ruskin's view, the Welfare State must arm itself. The State cannot give what is not there. Indeed, in a sense the State, of itself, cannot guarantee anything or any standard of life. It is an old criticism of the Anarchists that the State is for ever sterile. Properly understood, it is an entirely true statement. It can act only through its subjects; and in this matter of distribution, it can only redistribute what its nationals produce or what can be got from other nations in exchange for their products. And if Plague comes, fortified by the Colorado Beetle, Potato Disease, Foot-and-mouth Disease, blockade by the enemy and all the other horrors in the Malthusian repertory, a government guarantee of a standard of life will get you nowhere. The power of the Government to give is for ever limited by what the people themselves produce.

Indeed, in this matter I am inclined to carry my pessimism still farther. It is the tritest and most hackneyed of platitudes that rights must for ever be accompanied by duties; but though we invariably pay lip-service to the well-worn dictum, in fact, our eyes in these days are morbidly fixed on our rights, whereas our duties, after a vague and perfunctory wave of the hand in their direction, are allowed to fade into the background. The Universal Declaration of Human Rights is in this respect an illuminating document. Now in the economic field a right is something that you get from someone else, whereas a duty is what we do for another. And a society in which each member concentrates on getting rather than on giving has lost the roots of its stability.

If then, in the words of the Universal Declaration of Human Rights, the Welfare State is going to provide everyone "a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing" and much more, it must, in the last resort, have power to compel its subjects to see to it that the national bins are kept full, and that there are ample reserves under the counters of the national stores.

It may, I think, be proper to note one psychological rock which

a frank policy of compulsion might encounter. It may appear a paradoxical, and, indeed, a nonsensical way of putting it, but even a policy of compulsion must rest on consent. The bulk of the population must at least realise the necessity of compulsion, and be willing that others vicariously be coerced. It is because the need for compulsion is so much more obvious in war, that war-time coercion can be so surprisingly successful. But it is otherwise in peace when the need for compulsion is, for so many reasons, much less obvious. We are doubtless learning in these years of austerity and adamantine budgets. Yet I think that our problems have been made harder for us by long insistence in certain quarters on the phrase which speaks of " Poverty in the midst of Plenty "—or more discreetly, " Poverty in the midst of the possibility of plenty." It is a phrase that goes as far back as John Gray. On the contrary, the wolf is ever at the door; and throughout history a large section of the population of the world, taken as a whole, have been down at starvation level. I think that perhaps we may have bemused ourselves with speculations about the so-called Laws of Diminishing and Increasing Returns. Admittedly —*given the material out of which such things are made*—it is possible to belch out motor cars, and utility trousers and gadgets of all kinds, as never before. But let us be crude : Man lives not on motor cars and gramophone records, but by what he puts in his belly. We have doubtless all chided Senior for his somewhat too facile identification of Diminishing Returns with Agriculture and of Increasing Returns with Manufactures, pointing out (quite correctly, and with professorial complacency and superiority) that there are cases where Increasing Returns are manifested in Agriculture, just as in certain circumstances Manufactures may operate to reveal Diminishing Returns. But perhaps in the long run (most blessed of phrases) Senior may not have been so far out. The ineluctable fact is that the human race draws its sustenance from a distressingly thin layer of soil on the surface of the globe, and it is not growing any bigger. Perhaps misguided by the population tendencies of Western Europe, we may have been inclined somewhat prematurely to regard Malthus as a back-number, as a ghost effectively laid by our most admirable and ever-increasing moral restraint. For the world as a whole, population is increasing, and increasing rapidly; the supply of food is not increasing proportionately. One authority tells me that in 1960 world agricultural production may be from 20% to 25% above the level of 1930, whereas world population over the same period may show an increase of from 30% to 35%.

Assuredly, we are as yet hardly in a position to speak over-confidently of the arrival of an era of unlimited plenty.

So much for the first method of meeting the future, the method of compulsion and direction—that degree of authority over the people of which John Ruskin alone was capable of dreaming. You do not like it? No more do I, though I am of a more submissive disposition than most. But economically, it might be an efficient system, if the rest of the population were as submissive as I am, which probably they are not. From all we know of the Incas and the Jesuit settlements, it might be for certain placid peoples a highly efficient system indeed, producing on the material level a remarkably high degree of comfort and well-being. If compulsion is to be condemned, it must be on moral rather than on economic grounds; it is to be abhorred, above all, because it involves a denial of personality and an abrogation of responsibility.

But if, disliking the idea of a world resting on compulsion, you ask for an alternative which will preserve our free society, I suggest, as the second of my possible devices for the future that you might consider what can be done towards a solution of the age-long question of Incentive. And in some ways this is the most urgent of all our industrial problems, for never since the finest trumpetings of the mercantilists, has the clarion-call to work sounded so insistently as to-day. The idea of "Incentives," however, seems to involve the acceptance of the view that the natural man does not love work, or that he does not love it or endure it cheerfully, except in moderate doses. Yet apparently this innocuous proposition seems to be one which it is rather dangerous to advance in certain circles. For moralists tell us that we ought to love our work, and tend to think that if we have not yet reached that stage, the fault lies not in Man, but in the organisation of labour. As Fourier said in one of his illuminating flashes of vision: "Morality teaches us to love work; let it then know how to make work lovable." And as you may have discovered in your miscellaneous reading, any suggestion that mankind as a whole have in their make-up a something which leads them to regard work as no more than a second-best way of passing the time, is at times roundly described as a foul slander on our fellow-men. Yet I am unrepentant. I am sufficiently under the influence of Jewish mythology to believe that work is a curse, and I take refuge under the broad wings of St. Thomas Aquinas, who somewhere has tersely summarised Man as an animal *laborem fugiens*. What I would reject as a "foul libel" would be the

suggestion you may also have encountered that Man is as lazy as he dare be without risk of being found out. Searching my own heart in a desire for a just delicacy of statement, and contemplating a life-long struggle against what Godwin called the "allurements of sloth," I would confess for myself that I have been just about as lazy as my self-respect would allow. That, when I come to think of it, is rather a nice formula, tossing the ball back to our friends the moralists.

Work, for the present, then, I assume to be something which soon comes to be avoided, except for a small happy section of the community whose work and whose play merge into each other—the small body of insincere cranks who in *Who's Who* describe their recreation as "More Work." We work because we must; we consent to do more work, because of additional inducements and incentives. But in the new world to which we are moving the question of incentive, of overcoming Man's disinclination to work, will of necessity become vastly more difficult, just because the older incentives in their harsher form must become enfeebled as we seek to guarantee security and a reasonable standard of life in all circumstances.

Doubtless the problem of incentives should be considered along with the allied question of the removal of disincentives, if we may lapse into the barbarous jargon of these times. I am not sure that the Authorities realise how powerfully in certain circumstances the present Income Tax arrangements operate to restrict effort. The fact that payments in respect of overtime may bring into the group that pays Income Tax a worker who would otherwise be exempt leads him to assign the whole of the tax exclusively to that portion of his earnings that come from the extra hours worked. He complains that whereas he has from time immemorial been paid time-and-a-half for work outside normal hours, he is now being fobbed off with three-quarters time : he is, in fact, being paid at a lower rate for his overtime than for his ordinary day's work. There is, of course, a catch in it; but if you discuss the matter with him, unless you are a very good dialectician, he has a fair chance of persuading you that he is right.

Waiving the question of the removal of such "disincentives" which I mention merely to complete the picture, it remains true and regrettably true, that the only effective incentives are of a material character, with an appeal to the individualistic and competitive instincts of mankind which we are supposed to be eradicating. You may ring the changes on higher rates of pay and ingenious bonus payments; you may bring in shorter hours; but you

are still moving on the material plane and appealing in one way or another to the desire of gain and comfort. Nor do you escape (entirely, or at all) this material character by giving better seats at the Opera, or tours to the Northern Capitals, on the *Kraft durch Freude* principle. And as I said, precisely because we are moving into a better world, this problem of incentive must become more difficult; it may, indeed, turn out to be the acid test of the stability of our future economy. We have the firmest assurances that the Government will in future accept the task of maintaining full employment, though doubtless "full employment" may be variously defined. The testing time which will reveal whether the State has at all times and in all circumstances the power to fulfil this undertaking still lies ahead. But if full employment is defined, as it sometimes has been defined, as a world in which there are more jobs than men, then I tremble as in the presence of a nightmare. I am aware that I am again endangering my life, for I have already read the words of ecclesiastical dignitaries, censuring the cruelty of those who would drive men to work under the lash of hunger. One ought to be able to assume in bishops a knowledge of the Book of Genesis. The whole of Man's existence on earth has been a struggle for the conquest of bread. In a world where there are *more* jobs than men, it is fairly obvious that two things will happen. First, and by definition, a number of jobs will remain unfilled, and it is not difficult to say which jobs these will be. Man, *more suo* and *laborem fugiens*, will avoid those tasks which, for any reason, are regarded as unattractive, unpleasant or unduly arduous, though it may quite possibly be that without these a city may not stand. And simultaneously, higher up the scale, employers in desperation will spend their days enticing away the employees of others by the offer of higher wages, so that in the end we may say of wages, in the words of Isaiah (in his metrical version):

> On eagles' wings they mount, they soar.

It is sometimes instructive to see on a small scale what may later happen on a larger. To-day you have a fairly good illustration of a world of more jobs than men, if you take the market for domestic service. Domestic servants, so far as they survive, having read their Bernard Shaw, make a bee-line for widowers' houses—elderly widowers, with no children about the place. I do not blame them; I should do the same myself. An elderly widower who spends all his evenings at the Club provides a haven of peace compared to anything that can be offered by a harassed young woman with four children. Also the elderly widower is

more squeezable in money matters. At present, accordingly, the survivors of the race of domestic servants flock to the houses of those who in many cases might be better dead, and avoid those homes where the need is the sorest. This is almost a parable of what would take place in a world of more jobs than men; and the only possible remedy is clear. If there is a danger that certain essential tasks may remain undone because no one is willing to undertake them, the State, even if professedly shunning compulsion, would have to devise means of coercion. And so by another route, you are brought back to compulsion which we have already considered.

While on this question of incentive in this present transitional world, and with men as we still know them, I should like to allow myself a passing observation on two points in partial criticism of the tendencies of our time. First, am I perverse in sometimes feeling that to-day we are tending to be far too impatient of any suggestion of inequality in any sphere of life? I am still enough of a Saint-Simonian (and for that matter, a Fourierist) to consider that it is only by admitting a certain measure of inequality, something of the nature of a hierarchy, that we shall be able to get anywhere at all, or be able to make the machine march. The only place where there is absolute equality (just as it is the only place where there is absolute security) is in the grave. There is, I think, no harm in a certain degree of inequality, on two conditions: first, that the resultant disparity should not be offensive; and secondly, that there should be no barrier in the way of the somewhat-less-favoured of to-day becoming the somewhat-more-favoured of to-morrow by their own efforts, and (admittedly) by such an admixture of luck as you will never eliminate from life. Life always has been, and always will be, something of the nature of a race; and the young at least would have it so. But there is not much fun in taking part in, or in watching, a race where in advance the umpires impose handicaps which will effectively ensure that all the competitors will arrive simultaneously at the winning-post. In fact, incentives won't work, unless you are prepared to allow some inequality of one kind or another. And there is this further point. We turned to the possibility of devising effective incentives, in order to avoid compulsion and to preserve our free society. But, indeed, though Liberty and Equality have been for a century and a half yoked with Fraternity in a curious and uneasy Trinity, nevertheless, Liberty and Equality are natural enemies. It is the dilemma which vexed William Thompson for a life-time—a dilemma from which he never escaped.

For if we are to be free, and if we exercise our freedom, we must be free to be, among other things, unequal. On the other hand, if we are to be equal, it will be only because we are forcibly compelled to be equal, and denied the liberty of surpassing our fellows.

The second general point which I would merely mention in all this question of incentive and work is whether we may not have been striving somewhat too zealously and automatically in the direction of a shortening of the hours of work, regarding this as an end desirable in itself and in all circumstances and apart from all other considerations. It is a curious situation that a time marked by unremitting calls for increased activity should also be marked by continual strivings for reductions in the hours of work, and in some cases in the number of days in the working week. I am aware that I am again in danger of seeming to speak with the voice that betokens the heart of the callous slave-driver, and therefore I must tread delicately. I have already admitted that work is, in our professional jargon, a disutility; but those of us who have intermittently lapsed into work will probably agree that it is not such a loathsome thing as might be imagined from the unguarded talk of men taking their Sunday ease in their inn. It is not nearly so objectionable as, for instance, idleness spent in boredom. I am merely concerned to suggest a doubt as to the correctness of the assumption which we seem to make that every reduction in the hours of work must of necessity be a blessing in all cases. Doubtless at this point we pass the invisible frontier between Economics and Ethics; but I would like to suggest that the question whether a diminution in the hours of labour is or is not a blessing depends in part on the use made of the additional non-working hours. Ideally I would like a reduction in the hours of work to march hand-in-hand with a more intelligent use of the hours of leisure. A mere increase in the number of hours when a man does not know quite what to do, when he is merely a nuisance about the house, is probably a curse rather than a blessing. For assuredly, leisure unless it is filled with some occupation that almost assumes the dignity of work has, like other things, diminishing utility.

I have offered you compulsion; but you say that if possible you would prefer to retain your freedom. I have suggested that you endeavour to solve the question of Incentive in a free society; but you tell me that there may be something illogical in our new society in relying on incentives which, at their worst, as in *Taylorismus*, are unlovely, and which are of necessity material in their nature, with an individualistic appeal, inevitably differentiating

if not dividing men. The third course—I promised you three—is to enrol yourself frankly among the followers of Lenin (for this purpose) and wait in faith for the emergence of a better Man, for the universal prevalence of a higher order of morality than that now to be found among us; when in consequence the worker will no longer (the words are Lenin's) "calculate with the shrewdness of a Shylock whether he has not worked half an hour more than another, whether he is not getting less pay than another"; when "the necessity of observing the simple fundamental rules of human intercourse will become a habit." Admittedly this is a long-term policy and a long-term hope, and postulates in the words of Lenin "a person unlike the present man-in-the-street."

How far we can make ourselves fit to live in a better world by evolving a higher type of morality is presumably not an economic question. Nevertheless, I may not omit it to-day, because in the past—Louis Blanc is a useful example—it has so often been hoped that our economic difficulties would be solved in some such way. Nearly all our ardent reformers have confidently trusted that in a better world where all things are held and operated on behalf of the community, a higher order of morality would prevail. When workers could feel that they were working for their fellow-workers and not merely for the gain of another, they would adopt a new code of behaviour. Admittedly it will be a slow process, even on Lenin's own showing; and therefore perhaps we should not be impatient. I doubt whether so far anyone who in the past would have swindled the Railway Company has started like a guilty thing upon a fearful summons on observing that the letters "L.N.E.R." had been replaced by "B.R." Also we have made doubtful progress towards industrial peace; for apparently employment by the State or by a National Board does not necessarily mean bliss and content for all concerned. There is a devastating sentence in the second Annual Report of the Coal Board. It tells with restrained gratification that there were no official strikes during the year; "but," it adds, "there were 1635 unofficial strikes where men stopped work in defiance of their Union." One-thousand-six-hundred-and-thirty-five! One is reminded of the love affairs of Don Juan: "And in Spain, a thousand-and-three." Here surely, in the cold statistics of the Coal Board, is an illuminating figure significant of the economic and psychological friction prevailing in our society. It will assuredly take some time before we are all prepared to crucify Self to such an extent as will qualify us for admission to Lenin's heaven.

And so I leave it—somewhat inconclusively, like certain

modern composers who end without even asking a question, but merely because they have exhausted their time or their paper. Compulsion, shall we say, is detestable and ultimately immoral. Incentive is essentially a species of bribery, relying on the competitive instincts and leading us back to what some would have us regard as the jungle of individualism. I am all for the evolution of a better Man, and for that matter of a better Woman; but it is a slow process for frail creatures whose years are three-score-and-ten. Perhaps in the end there *is* a conclusion, though it is not an economic one. It is that before we can be trusted to live in the New Jerusalem, we must first of all be fit to walk the streets of the New Jerusalem. And as applied to our transitional times, I would suggest that despite all superficial appearances, the New World into which we are moving is not going to be a world which will make everything easy for everybody by giving everybody everything. If it is to work, it will be a world which will make vastly greater demands on everyone. It will demand that most difficult of all things to attain, that plant of very slow growth, a higher standard of public and private morality in all things, and in particular the suppression of Self. For Socialism is parading under a false name, unless it means an order of things in which we forget ourselves in our zeal for the good of society and of our fellows, and in which speculation as to our place in the queue is the last thought that occurs to us. And it is not I, but Lenin who says so.

ALEXANDER GRAY

Edinburgh University.

DEMAND FOR COMMODITIES IS *NOT* DEMAND FOR LABOUR

MODERN economists employing Marshall's principle of derived demand have had no difficulty and much enjoyment in establishing to their own satisfaction the utter fallacy of Mill's "fourth proposition regarding capital," that "demand for commodities is not demand for labour." [1] The most recent writer to dismiss the proposition on this ground is Professor Pigou, whose article on "Mill and the Wages Fund" [2] also follows convention in attributing the fallacy to the prior fallacy of the wages-fund doctrine itself. The purpose of this article is to take issue, through Professor Pigou's brief comments, with those who have taken issue with Mill; to argue the fallacy of the fallacy, or rather to protest against the superficiality of this interpretation of Mill's proposition.

The issue of interpretation is important, since it raises the general problem of methodology in the study of the history of economic thought. If the historical study of economic theories is to amount to anything more than the cultivation with invidious intent of a rather uninspiring branch of folk-lore, it is essential that it deal scientifically with the authors who constitute its raw material. In particular, since the capacity for rigorous analysis is not often closely associated with the capacity for economic intuition, it is necessary to distinguish carefully between the two major problems of the history of economic thought. These are, on the one hand, the development of analytical technique—the rate of technological progress in the machine-tool industry of economics—and on the other hand, the degree of understanding of economic processes and problems evidenced by the great economists of the past—the calibre of the entrepreneurs.

[1] J. S. Mill, *Principles of Political Economy*, Ashley edition, Book I, Ch. V, Sec. 9, pp. 79–88; cf. also pp. 55–6. The proposition is of long standing in the history of economic thought; cf. D. Ricardo, *Principles of Political Economy and Taxation*, 3rd edition, London, 1821, Ch. XXXI, pp. 475–8; also R. Cantillon, *Essai sur la Nature de la Commerce*, Pt. I, Chs. XIV and XV, pp. 76–113. The essential point is put more clearly by Ricardo than by Mill, although Ricardo's argument has also been misunderstood (for example, E. C. K. Gonner, *Ricardo's Political Economy*, London, 1891, pp. 389–91). What is in the author's opinion a correct interpretation of Mill's proposition is that of Professor Laughlin (J. L. Laughlin, *Principles of Political Economy by John Stuart Mill*, New York, Appleton, 1884, pp. 87–92).

[2] ECONOMIC JOURNAL, Vol. LIX, No. 234, June 1949, pp. 171–80. Professor Pigou's argument (pp. 174–5) is identical with that of Marshall (*Principles of Economics*, 8th edition, London, 1920, p. 828) and of Professor Gonner (*op. cit.*).

The study of the first problem requires a critical evaluation of the comparative technical efficiencies of systems of economic theory, whereas the study of the second requires an assessment of the economic efficiencies of the economists applying those systems. Since the methods of approach are different, and the conclusions with reference to any particular economic author likely to differ, it is essential to confine the conclusions of each type of study to its own sphere, and particularly to avoid identifying inferior or superior technique with inferior or superior economic insight.

In order to avoid this latter confusion, and the tendency towards excessive self-congratulation which is associated with it, it is absolutely necessary that two principles of sound methodological criticism be strictly adhered to. The first is that the validity of a proposition *in the form in which it is stated* depends on the structure of the theoretical system from which it is derived, and must be assessed with reference to that system and not some other; it should be emphasised that it is the logical structure of the theory, and not the validity of its factual assumptions, which is here in question. The second principle is that a proposition drawn from one theoretical system may appear fallacious or even nonsensical in terms of another theoretical system, and yet prove to be quite sensible and even fruitful when properly reformulated to conform to the logical structure of that system.[1]

These principles are obvious enough, even trite, but nevertheless have often been neglected; one may cite the nineteenth-century treatment of the mercantilists, and the twentieth-century treatment of certain alleged "monetary cranks," both of which groups have since been restored to respectability by the charitable efforts of the employment theorists. It is the argument of the remainder of this article that Mill's fourth proposition has received similarly superficial and unscientific treatment at the hands of its modern critics.

The validity of the proposition, within the framework of the wages-fund theory, is accepted by the critics at least by implication, and is in any event convincingly established by Mill. The argument may be summarised as follows: the demand for labour to produce commodities being determined by the size of the fund set aside by capitalists for the payment of wages, the purchase

[1] The converse is also possible: a proposition of one theoretical system may appear sensible in another, and yet be unnecessary and needlessly complicating in the latter system. An example is the connection of rent with diminishing marginal productivity, which was logically necessary in the Ricardian system, but is unnecessarily restrictive and needlessly confusing when incorporated in the framework of the modern theory of value.

by any individual of the commodities produced does not determine the demand for labour (although it does determine the types of commodities produced), since the decision as to whether the proceeds of sale will be used to re-create the wages fund still rests with the capitalists. The only way in which an individual can influence the demand for labour is by not consuming goods—either saving and adding to the wages fund (thereby increasing the demand for "productive" labour) or substituting labour services for commodities in his own consumption (thereby increasing the demand for "unproductive" labour). In either case, the commodities for which saving or services are substituted will now be purchased by labour out of its increased income, so that there will be no offsetting reduction in the demand for labour to produce commodities.

It is important for the subsequent argument to note that Mill does *not* deny that the production of commodities involves the employment of labour; his argument is simply that expenditure on labour services results in a larger total demand for labour than does expenditure on commodities. "I apprehend that if by demand for labour be meant the demand by which wages are raised, or the number of labourers in employment increased, demand for commodities does not constitute demand for labour. I conceive that a person who buys commodities and consumes them himself, does no good to the labouring classes; and that it is only by what he abstains from consuming, and expends in direct payments to labourers in exchange for labour, that he benefits the labouring classes, or adds anything to the amount of employment." [1]

It is quite obvious that Mill's argument is logically valid, in the form in which it is presented. It is also evident that, superficial appearances to the contrary, Mill is not denying that labour is required for the production of commodities; and that therefore it is no refutation of his proposition, or demonstration of fallacy, to re-assert the principle of derived demand. It follows that the argument put forward by Professor Pigou and others misses the point, and in the process violates the first of the methodological principles previously stated.

The proper approach to Mill's proposition is not to test the bald formulation of it against the formal conclusions of modern value theory, but to disentangle his argument from the faulty apparatus of the wages-fund doctrine and determine how far it retains meaning when re-cast in the terminology of modern theory.

[1] Mill, *op. cit.*, pp. 80–1.

One line of approach is to investigate the implications of the sentence (quoted by Pigou) which introduces the proposition: "What supports and employs productive labour, is the capital expended in setting it to work, and not the demand of purchasers for the produce of the labour when completed." This can be interpreted [1] as the extremely important dynamic proposition that the demand for labour in production is not determined by current sales receipts, since production must always take place in advance of consumption, and the entrepreneur is under no obligation to maintain working capital intact. On this line of thought, the proposition that "demand for commodities is not demand for labour" points the way to the analysis of time-lags, expectations and inventory cycles, and the wages-fund doctrine itself becomes a crude form of sequence-analysis.

This interpretation, while suggestive, is unsupported by the remainder of Mill's argument on the subject; and it seems excessively generous to Mill, whose dynamics after all were of the Harrodian rather than the Hicksian variety. More seriously, if this view were accepted as the complete explanation of the proposition, the charge of fallacy would be justified, since the principle of derived demand would still apply to the circular flow economy of static analysis, allowance being made for the possibility of interest being deducted during the period of production. Professor Pigou's argument would then be quite valid, although it might be considered somewhat unfair to attack Mill on page 173 for ignoring the possibility that entrepreneurs may independently alter the size of the wages fund, and to attack him again on page 175 with an argument which itself ignores that possibility.

However, as already demonstrated, Mill is not attempting to deny the principle of derived demand, and a mere reaffirmation of it does not constitute a proof of fallacy committed on his part. His proposition is rather concerned with the fact that while part of the demand for labour is derived from the demand for commodities, part of it is a direct demand for labour services; and that in respect of the latter demand, labour is a substitute in consumption for commodities. Moreover, he argues, since the labourers directly employed in providing services spend their incomes on commodities, the demand for labour derived from the

[1] The interpretation is that of Professor J. A. Schumpeter. The author begs the reader's indulgence for a purely private argument; in extenuation he acknowledges his many debts to Professor Schumpeter, who first stimulated his interest in the scientific aspects of the subject.

production of commodities will be the same in the two cases. The proposition amounts to this : that demand for commodities is not demand for labour, in the sense that the former does not and the latter does give rise to a direct demand for labour in addition to the derived demand.

What Mill seems to have had in mind is a rather crude conception of the process of production in terms of stages, crude insofar as all commodities are assumed to take only one stage for production and services to take two stages (*i.e.*, labour into commodities, and commodities into labour services). In static analysis this amounts to the assumption that the labour-coefficient of production of services is double that of commodities. This leads to the point made by Mr. Dobb,[1] that the proposition that " demand for commodities is not demand for labour " in Mill's sense, with its corollary that the direction of demand among commodities does not affect the total demand for labour, depends on the assumption that the labour-coefficient of production is the same for all commodities—in Mr. Dobb's terminology, the organic composition of capital is constant throughout industry. This is, of course, not the case in fact, and once the assumption is abandoned the bothersome and artificial distinction between services and commodities disappears. The proposition can then be reformulated in general terms as the highly interesting theorem that the demand for labour is greater or less according to whether the demand of consumers is directed towards more or less labour-intensive forms of want-satisfaction.

Since Mill's formulation allows the demand for labour to influence *either* the level of wages *or* the volume of employment, his proposition may be taken to give rise to parallel propositions in the two main divisions of modern economic theory, the theory of value and the theory of employment—or micro-economic and macro-economic theory. Both propositions relate to important problems which have received comparatively little attention.

The micro-economic proposition relates to relative shares in the national income. It is that, given factor supplies and the technical conditions of production, the division of income between labour and capital depends on the preferences of the community as between relatively labour-using and relatively capital-using types of goods—so that factor-owners have an interest in demand being directed to industries which use their factors relatively intensively. An elegant demonstration of this proposition,

[1] M. H. Dobb, *Political Economy and Capitalism*, revised edition, London, 1940, pp. 43–5.

employing the technical apparatus of the community preference-system, the community transformation-curve and the production contract-box, could easily be elaborated along the lines developed by Professors Samuelson and Stolper in their study of the effects of international demand on factor incomes.[1]

The macro-economic proposition relates to the employment multiplier. It is usually assumed that there is a unique function relating employment to the level of income; Mill's proposition would indicate that the employment multiplier for a given initial expenditure will be greater or less according to whether the expenditure is on relatively labour-using or relatively capital-using items, a point which has important policy implications. The proposition could be established by a small dose of the usual algebra;[2] if it is assumed that the marginal propensity to consume from labour incomes is greater than the marginal propensity to consume from capital incomes, the conclusion becomes even stronger, though it does not depend on this assumption.

The foregoing argument is presented as a methodological sermon, with the dual purpose of demonstrating that Mill's fourth proposition is neither fallacy nor paradox, but a crude statement of an important economic truth, and illustrating the fallacy of hunting fallacy by testing the statements of one theoretical structure against the conclusions of another. If the argument should seem at some points excessively generous to Mill, the author can only claim the sermoniser's privilege of transgressing mildly his own methodological standards.

HARRY G. JOHNSON

Jesus College, Cambridge.

[1] P. A. Samuelson and W. F. Stolper, "Protection and Real Wages," *Review of Economic Studies*, Vol. IX, No. 1, November 1941, pp. 58–73. The problem of the effects of changes in the technique of production on relative shares, which was closely associated in the classical analysis with the problem of the distribution of demand (*e.g.*, Ricardo, *op. cit.*, Ch. XXXI, pp. 466–75) has been much more exhaustively studied by modern economists.

[2] Taking E to represent the initial expenditure (measured in wage-units), N the level of employment, c the marginal propensity to consume and k the average labour-coefficient of production, the multiplier for an increase of expenditure on services is

$$\frac{dN}{dE_s} = 1 + ck + c^2k + c^3k + \ldots . = 1 + ck(1/1 - c)$$

and for an increase of expenditure on goods is

$$\frac{dN}{dE_g} = \qquad k + ck + c^2k + \ldots . = k(1/1 - c).$$

The former is necessarily the larger for values of k less than unity. Mill's argument assumes that $c = k = 1$, and that the "income-propagation period" for service industries is negligible; and it employs a truncated multiplier extending over only one period.

THE MULTIPLIER AS MATRIX

THE great attraction of the Keynesian system is its simplicity, which is, at the same time, its danger and its limitation. I propose to indicate how we may relax its cruder aggregative aspects without too hopelessly complicating matters. To accomplish this step we naturally turn to the Leontieff matrix as an adequately simple representation of general equilibrium. Yet it is generically different from the Keynesian system by being homogeneous, *i.e.*, the proportions are unique, but the scale of the whole system may be any multiple of the correct proportions. Only a small change is required to transform the one into the other, but it is just this small change which is necessary to study the short run generation and propagation of income.

The generalisation of the Keynesian system proceeds perfectly naturally in two directions. If we extend his concept of a marginal propensity to consume of less than one, to all other industries, we get a matrix multiplier with extraordinary formal analogies with the simple multiplier. To counterbalance the increased complexity, there is a much richer, more complete result. Even though a matrix multiplier should prove too difficult in practice, it yields considerable clarification of principle, for by taking a broader standpoint, it shows more clearly the meaning and limitations of the Keynesian multiplier.

The compound-matrix multiplier may be broken down into a kind of simple multiplier for each sector. Correspondingly we must have given not only total investment but also its distribution by industry. These sector multipliers may be sorted out in such a way, by a change of variables, that there exist n separate and independent multipliers of exactly the same form and simplicity as the Keynesian multiplier. Or again we may develop a single, massive multiplier which applies to all transactions instead of income alone, and which is a weighted mean of all sector multipliers.

The second direction of generalisation is the dynamical one. It is fairly generally agreed that Keynes was wrong to maintain rigidly the notion of a purely static multiplier. Granted the existence of lags in the flow of payments, we find that usually only one lag is assumed, specifically the one between income and consumption. The obvious extension is to admit a lag between

income and expenditure for every industry as well. This leads to a dynamical-matrix multiplier which again shows an almost complete formal analogy with the simple multiplier. Although still a crude simplification, such a system does make a first step towards a realistic picture of the actual circular flow of payments in an economy. Any money spent is propagated with an unexpected slowness through the succeeding sectors even though any individual sector lag is short, and this aspect of the mechanism tallies with the observed sluggishness of the economy in response to spending programs.

The consequence of many short lags cannot be demonstrated exactly, because the result is not one long lag but a distributed lag, and this is derived for the particular case of consumption in order that it may be compared with the usual assumption of a single lag. As a result of the slow, staggered filtering of payments through the mechanism, their effects may get out of step in such a way as to create oscillations of any magnitude or duration. Thus the introduction of many lags leads to qualitatively different behaviour from that of the dynamical Keynesian multiplier. It is a remarkable fact that the dynamical-matrix multiplier can be shown to have necessarily an oscillatory element in its behaviour.

We may first consider in simplified form how Keynes modified the older approach, in order to see how, pursuing the same line of development, we can best modify his own.

Let us represent an economy by

$$
\begin{array}{ccccccccc}
\cdot & & Y_{12} & + & \cdots\cdots\cdots & + & Y_{1n} & = & {}_RY_1 \\
 & & & & & & + & & + \\
Y_{21} & & \cdot & + & \cdots\cdots\cdots & + & Y_{2n} & = & {}_RY_2 \\
+ & & + & & \cdot & & + & & + \\
\vdots & & \vdots & & \ddots & & \vdots & & \vdots \\
 & & & & & & + & & \\
+ & & + & & & \cdot & Y_{n-1,n} & & + \\
Y_{n1} & + & Y_{n2} & + & \cdots\cdots & + Y_{n,n-1} & \cdot & = & {}_RY_n \\
\parallel & & \parallel & & & & \parallel & & \parallel \\
{}_eY_1 & + & {}_eY_2 & + & \cdots\cdots\cdots & + & {}_eY_n & = & PT
\end{array} \tag{1}
$$

These symbols stand for money quantities and Y_{ij} means Y units of the product of i industry sold to j industry (or better sector, since it need not be homogeneous or indeed an industry at all, *e.g.*, the Government). Although it is not strictly necessary, it is helpful to assume a closed economy for simplicity. ${}_RY_j$ is the

total revenue from the sale of j's product; ${}_eY_i$ is the total expenditure made at the same time by sector i. Again merely for simplicity we lump all the owners of factors of production into one sector n and call it households.

If we add all sales (rows) we get $\overline{PT}$, total transactions. If we add all of the expenditures (columns) we get also $\overline{PT}$. The sum of outlays is identically equal to the sum of all receipts, since we merely add the same things in different order. This is a peculiarly trivial tautology, completely devoid of empirical content, but not altogether useless since it is sometimes ignored.

This system is very general: it need not be stationary, and it may be analysed statically or dynamically. The tautology I shall call Say's Law of the First Kind, without necessarily implying that it correctly represents that much disputed proposition of J. B. Say. Here it takes visible form in the fact that every element in the matrix of the system is necessarily at once in a column (a purchase) and in a row (a sale). Every sale is a purchase, or supply is also demand. Any attempt to narrow and sharpen the law involves an empirical element, and hence cannot be stated as self-evident and necessarily true. Yet the wider version is not useless. Keynes implicitly accepted it, for his multiplier argument (and the equality of savings and investment) rests upon it.

That it is so may easily be demonstrated from equations (1). The sum of the columnar sums is equal to the sum of the row sums so that

$$(2)\quad {}_RY_n - {}_eY_n = ({}_eY_1 - {}_RY_1) + ({}_eY_2 - {}_RY_2) + \dots\dots + ({}_eY_{n-1} - {}_RY_{n-1}).$$

Savings (absorptions of purchasing power by households) equals investment (injections of purchasing power by firms). Since all the terms on the right-hand side need not have the same sign, we are naturally led to a generalisation: the algebraic sum of injections (an absorption being a negative injection) in a closed economy is zero.

$$(3)\qquad \sum_{i=1}^{n} ({}_eY_i - {}_RY_i) = 0.$$

If we assume that consumption is linear in income we get

$$(4)\quad {}_RY_n = \frac{1}{1-\alpha}[b + ({}_eY_1 - {}_RY_1) + \dots + ({}_eY_{n-1} - {}_RY_{n-1})],$$

where α is the marginal propensity to consume and b the consumption independent of income, and thus we get the multiplier in the usual form. The income must be the multiplier value of the elements of expenditure not out of receipts. These are, for

households, the constant expenditures which are not determined by the level of income. For firms they are the excesses of expenditures over revenues, for the most part net investment, but not necessarily. For example, they may arise merely because of change, *e.g.*, the spending of yesterday's receipts to-day. They may be dividends paid out of past not current earnings, or conversely there may be net investment going on even though expenditures exactly equal receipts. Treating the government as a sector, relief payments not tax financed, would be an injection though certainly not investment.

In this system the rows, ${}_RY_i$, need not equal the columns, ${}_eY_i$. If the equality of corresponding rows and columns be assumed, then we have what I shall call Say's Law of the Second Kind. It is clearly not in general true. Thus if sector i arbitrarily increases its outlay (column i), it does not follow (in fact it is almost certain *not* to follow) that its receipts (row i) will increase by a like amount. Yet for all sectors taken together it is necessarily so, and hence the total system is in a kind of neutral equilibrium with respect to total transactions.

In the early chapters of the *General Theory,* Keynes attacked Say's Law of the Second Kind. Starting with all transactions, he cancels out inter-firm transactions and leaves national income. He then states that Say implies that the income generated is exactly equal to net (of inter-firm) output. Hence money available to spend and spent on output is equal to the money value of output identically, with the consequence that the level of aggregate money output is indeterminate. If the nth sector is the total factor market, the proposition disputed by Keynes would be that the nth row is necessarily equal to the nth column. Obviously it may be so or it may not be so, but there is no necessity for it to be so, and hence it cannot be enunciated as a general law. It is almost never true for modern capitalist society, because the factor owners do not consume all they earn.

To illustrate the point and lay the basis for further analysis, let us take a stationary state and make a static analysis of it, assuming given and fixed prices and production coefficients. The system may be written as :

$$(5)\qquad \begin{bmatrix} -1 & a_{12} & \cdots\cdots\cdots & a_{1n} \\ a_{21} & -1 & & \vdots \\ \vdots & & & \vdots \\ \vdots & & & \vdots \\ \vdots & & -1 & a_{n-1,n} \\ a_{n1} & a_{n2}\cdots & a_{n,n-1} & -1 \end{bmatrix} \begin{Bmatrix} y_1 \\ \vdots \\ \vdots \\ \vdots \\ \vdots \\ y_n \end{Bmatrix} = \begin{Bmatrix} 0 \\ \vdots \\ \vdots \\ \vdots \\ \vdots \\ 0 \end{Bmatrix}$$

where the a's are the coefficients and the y's the rates of money outputs or sales.[1] Under these restrictive conditions Say's Law of the Second Kind holds, each sector disburses exactly its receipts, and the sum of the elements in any one column of the matrix of (5) is zero. If all firms act thus, all households do too by virtue of Say's Law of the First Kind, for if we add all the equations, the first $n - 1$ columns annul themselves, so that we get

$$(6) \qquad -\left(1 - \sum_{i=1}^{n-1} a_{in}\right)y_n = 0.$$

Hence, if we have any income at all, the marginal propensity to consume, $\alpha = \Sigma a_{in}$, must equal unity, so that y_n the level of income is indeterminate. Consequently the matrix has a rank of $n - 1$ and the solutions are

$$(7) \qquad \begin{Bmatrix} y_1 \\ \vdots \\ y_n \end{Bmatrix} = C \begin{Bmatrix} y_1^* \\ \vdots \\ y_n^* \end{Bmatrix}$$

where C is arbitrary and y^* is any set of values which satisfies (5). The proportions are unique, but the general level is arbitrary. Such a system is a simple example of the doctrine which Keynes attacked.

The " classical " economists knew, of course, that the whole of income was not necessarily spent, but they satisfied the Law of the Second Kind by including a capital market which achieved the result. A preponderance of opinion has followed Keynes in denying that the interest rate is able to accomplish so difficult a task. Therefore we cannot assume that households automatically disburse all their receipts, and we must assume a marginal propensity to consume of less than one. For equations (5) this means that the rank of the matrix is raised to n and that any solution other than zero must be due to the inhomogeneous elements (the injections). There is a great deal of empirical evidence, summarised in Allen and Bowley, *Family Expenditure*, for approximately linear consumption terms, so that we might write the nth column as

$$(8) \qquad \begin{matrix} a_{1n}y_n & + & b_{1n} \\ \vdots & & \vdots \\ a_{n-1,n}y_n & + & b_{n-1,n} \\ -1 & & \end{matrix}$$

[1] The a's may be obtained by dividing all the elements of any column by its element along the principle diagonal (the sector output) thus obtaining the input ratios. The array of coefficients is the Leontieff matrix, where all intra-industry sales are ignored, and where prices are absorbed into the technical coefficients. Cf. *The structure of the American Economy, 1919–1929*, Cambridge, 1941.

or summing

$$(9) \qquad -(1-\alpha_n)y_n + \sum_{i=1}^{n-1} b_{in}$$

where the one represents the negative expenditure which is the income of the factor owners. This is a linear consumption function with a constant marginal propensity to consume, $\alpha = \Sigma a_{in}$. Likewise, we know that firms do not merely disburse what they receive, but they sometimes disburse more and sometimes less. In principle at least, we may separate the injections from the passive current account, which would be the only one in a stationary state. Calling net injections b, we may write any column j as

$$(10) \qquad \begin{matrix} a_{1j}y_j + b_{1j} \\ \vdots \quad\;\; \vdots \\ a_{nj}y_j + b_{nj} \end{matrix}$$

and summing, the stationary elements annul themselves, so that we get

$$\sum_{i=1}^{n} b_{ij}$$

for the net injections or sources of spending. Households or firms may either be sources or sinks of the flow of funds, though by Say's Law they cannot all be the one or the other at the same time. We may now rewrite our equations (5) as

$$(11) \qquad \begin{bmatrix} \\ a \\ \\ \end{bmatrix} \begin{Bmatrix} \\ y \\ \\ \end{Bmatrix} = - \begin{Bmatrix} \sum_j b_{1j} \\ \vdots \\ \sum_j b_{nj} \end{Bmatrix}$$

This inhomogeneous system is consistent, since the augmented matrix has the same rank as the unaugmented, and it therefore has a solution, and that solution is unique. This solution is the multiplier value of the total injections. It is convenient to add all the other rows to the last row, which makes an equivalent system with the same solution as (11).

$$(12) \qquad \begin{bmatrix} -1 & a_{12} & \cdots & \cdots & a_{1n} \\ a_{21} & -1 & & & \vdots \\ \vdots & & & & \vdots \\ \vdots & & & & \vdots \\ a_{n-1,1} & a_{n-1,2} & \cdots & -1 & a_{n-1,n} \\ 0 & 0 & & 0 & -(1-\alpha_n) \end{bmatrix} \begin{Bmatrix} y_1 \\ \vdots \\ \vdots \\ \vdots \\ \vdots \\ y_n \end{Bmatrix} = - \begin{Bmatrix} \sum_j b_{1j} \\ \vdots \\ \vdots \\ \vdots \\ \sum_j b_{n-1,j} \\ \sum_i \sum_j b_{ij} \end{Bmatrix}$$

By thus isolating the lowest diagonal element, we are able to solve for national income, y_n, without solving for all the other variables.

$$(13) \qquad y_n = \frac{\sum_{ij} b_{ij}}{1 - \alpha_n}.$$

This shows quite clearly the basis for the Keynesian method of treating income and its intimate connection with Say. By virtue of applying Say's Law of the Second Kind to firms but refusing to do so to households, he was enabled to separate out national income and make an important and difficult problem easily soluble.

The Statical Matrix Multiplier

The simplicity of the Keynesian method is perhaps justification enough. Yet it is worth while raising the question of the soundness of applying Say's Law of the Second Kind to firms. It is well known that firms tend to absorb funds at some times and to inject them at others. There are the phenomena of internal financing, of the failure to disburse earnings, of heavy fixed charges and of the payment of dividends above current earnings. Although these actions may be legally imputed to households, none the less the decisions and determining factors lie in the industries. In fact, there is a considerable body of evidence for linear total cost functions (over a considerable range) with a high positive intercept. Or to put it another way, marginal cost is constant and well below price. In view of these facts it would be wise to drop the, admittedly highly convenient, technique of equating current receipts and expenditures.

In accord with this hypothesis we must change the typical element in the equations from $a_{ij}y_j$ to $a_{ij}y_j + b_{ij} + \beta_{ij}(t)$ where the b_{ij} are the fixed outlays and the β_{ij} are the outlays not explained by the level of output. The fixed costs or outlays are, of course, variable in the long run, but have undoubtedly considerable constancy in the short run, and it is for this case only that the multiplier is useful. The Leontieff data are not sufficient to determine the two constants a_{ij} and b_{ij}. What is necessary is to have two (at least) levels of output which are not distinguished by differences in prices or technology, or other equivalent supplementary information.

Adding all the coefficients in any column j, we get

$$-(1 - \sum_i a_{ij}), \; i \neq j,$$

and calling Σa_{ij} the marginal propensity to spend, α_j, we see that in effect we have a kind of multiplier (or as it would be better to

call it, a divider) for each sector. In the case of industries the α_j is approximately the same thing as marginal cost, and hence we may base our assumption of a constant marginal propensity of less than one on the evidence for marginal costs that are constant and less than price over a considerable range.

In order to simplify notation, b_{ij} and β_{ij} may be lumped together and called injections, b_{ij}. Also they may be taken as constants, since variable injections may be considered as a series of different constant injections, each of which lasts for a short time only. It is helpful, to emphasise the extraordinary formal analogy between the Keynesian and the matrix multiplier, to rewrite equations (11) as

$$(14) \qquad \left[I - a\right]\left\{y\right\} = \left\{\sum_j b_{ij}\right\}$$

where a is redefined to be the same as before except for the omission of the units along the principle diagonal, and where I is the unit matrix analogous to unity in scalar algebra. The solution then is

$$(14a) \qquad \left\{y\right\} = \left[I - a\right]^{-1}\left\{\sum_j b_{ij}\right\}$$

which says that the list or vector of transactions is equal to the matrix multiplier value of the vector of injections, *i.e.*, specified not only as to total amount but also by sector in which they are spent. It yields much richer results than the Keynesian multiplier as well as more accurate and useful ones.[1] Unfortunately it also removes multiplier calculations from the sphere of the ordinary economist, who can afford neither research staff nor elaborate calculating machinery.

Adding all the equations to the last one in (14), we get

$$(15) \quad (1 - \alpha_1)y_1 + (1 - \alpha_2)y_2 + \ldots\ldots\ldots + (1 - \alpha_n)y_n = \sum_{ij} b_{ij},$$

which may be rewritten as

$$\left(\frac{\sum_i (1 - \alpha_i)y_i}{\sum_i y_i}\right)\sum_i y_i = \sum_{ij} b_{ij}.$$

Hence

$$(15a) \qquad \sum_i y_i = \sum_{ij} b_{ij} \Bigg/ \frac{\sum_i (1 - \alpha_i)y_i}{\sum_i y_i},$$

or

total transactions = weighted average multiplier × total injections.

[1] This point is demonstrated in some detail, though in a slightly different context, by the Bureau of Labour Statistics study, *The Structure of the American Economy under Full Employment Conditions.*

The Dynamical Matrix Multiplier

The more important consequences of considering the whole economy rather than the national income alone, come when we consider, as is obviously necessary, a dynamical structure. In the previous section we have imputed a marginal propensity to spend of less than unity to all sectors rather than merely to households. In this section we shall investigate the implications of assuming lags in the circulation of money throughout all sectors rather than in households alone, as is the assumption in the simple income-expenditure lag usually incorporated in multiplier analysis.

The problem is somewhat more complicated in the case of firms than in that of households. In place of putting current inputs as linearly dependent on the current rate of sales or outputs, we may assume that they are linearly dependent on the current rate of fabrication. For this we need the Frisch sausage-grinder function, which gives a precise answer to the old economic problem : at what rate will meat be being ground at any time if there has been a varying rate of input? [1] Assuming that production starting is equal to current sales, $s(t)$, and calling the fabrication period 2θ, we have

$$y(t) = \int_{t-2\theta}^{t} \frac{s(\tau)}{2\theta} d\tau \approx s(t-\theta),$$

by taking the mid-point of a function over a short stretch of time as the best approximation to its average value. But the sales at time t of any industry are the inputs of its products by all the other sectors, hence a typical row becomes

$$a_{i1}y_1(t) + b_{i1} + \dots\dots + a_{in}y_n(t) + b_{in} = y_i(t+\theta_i).$$

Consequently equations (14) become [2]

$$(16) \qquad \Big[I \Big] \Big\{ y(t+\theta) \Big\} - \Big[a \Big] \Big\{ y(t) \Big\} = \Big\{ \sum_j b_{ij} \Big\}.$$

I shall now make the assumption that all the lags θ_i are the same and measure time in these uniform unit-lag periods. The more complicated, and realistic, case of unequal lags may be solved in principle, but the gains in simplicity are great from taking them

[1] Cf. his " Propagation and Impulse Problems " in *Economic Essays in Honour of Gustav Cassel*, London, 1933.

[2] It is worth noting that if we interpret this system more broadly as a technological, rather than merely as a payments, matrix, we have the simplest possible dynamical general interdependence system. It would then be interpreted as, to-day's output gives rise to to-morrow's input. As such, it is a first step in dynamic analysis or economic planning. It is, however, only a first step, since it gives no explanation of investment, nor does it take account of its effects.

all to be equal. (16) is exactly analogous to the ordinary lagged multiplier and may be formally solved in the same elementary way by using it as a recurrence relation which gives rise to a geometric series, in this case a matric geometric, or Neumann as it is sometimes called, series. Letting the simple symbol stand respectively for square and column matrices, we have

$$y(1) = b + ay(0),$$

where $y(0)$ is any given initial transactions vector.

$$\begin{aligned} & y(2) = b + a[b + ay(0)] = b + ab + a^2y(0). \\ (17)\quad & y(3) = b + ab + a^2b + a^3y(0) \\ & \vdots \\ & y(t) = [I + a + a^2 + \dots\dots + a^{t-1}]b + a^ty(0).^1 \end{aligned}$$

Thus y consists of a steady-state part due to the constant injections and a transient or variable part due to the n arbitrary initial sector rates of production.

Exactly as in the case of the simple multiplier, there arises the question of whether or not this approaches a limit as time progresses. We say that this matrix-power series converges if, given

$$h(t) = I + a + a^2 + a^3 + \dots\dots + a^{t-1},$$

$h(t) \longrightarrow H$ as $t \longrightarrow \infty$. This means that every element in h converges to a scalar limit in the ordinary sense. Post-multiplying by a,

$$h(t)a = a + a^2 + a^3 + \dots\dots + a^t,$$

and adding I to both sides

$$\begin{aligned} h(t)a + I &= I + a + a^2 + a^3 + \dots\dots + a^t, \\ &= h(t) + a^t. \end{aligned}$$

Therefore

$$h(t)[I - a] = I - a^t.$$

If as $t \longrightarrow \infty$, $h(t) \longrightarrow H$, then $a^t \longrightarrow 0$ and

$$(18) \qquad H = [I - a]^{-1},$$

so that

$$y(t) \longrightarrow [I - a]^{-1}b \text{ as } t \longrightarrow \infty.$$

Consequently we find that the dynamical-matrix multiplier has the static value as a limit, if a limit exists, in the case of continued constant injections. By a similar argument we find that a single set of injections generates a total result equal to the multiplier value. Equations (17) have perfectly determinate solutions, even if the geometric series is not convergent but no multiplier exists

[1] I have had the privilege of reading an unpublished manuscript of Mr. Tun Thin, in which he uses this device.

(as is also true in simple Keynesian analysis). The question of convergence is of considerable practical and theoretical interest. A sufficient condition may be stated as follows: this series converges—and hence a matrix multiplier exists—if every sector has a marginal propensity to spend of less than one. Thus our condition is exactly parallel to the condition on the marginal propensity to consume in the simple multiplier. If each sector exactly disburses receipts for all levels of output we get a pure propagator analogous to the quantity theory of money, since it implies that all marginal propensities are always one exactly. This conclusion fits our intuition that if each sector always disburses all its receipts, nothing will ever disappear (no leaks or sinks of purchasing power), and hence there is no tendency for the system to run down, or to approach a level if there are constant injections. On the other hand, we feel that obviously if no sector ever disburses quite all of any added revenue, then a dollar injected will eventually exhaust all its effects, direct and indirect.

Such intuitions are vital in suggesting results, but they are not conclusive and may, indeed, be quite false. Fortunately, our hypothesis is not difficult to prove. Call any element in the matrix $[a]^t$, $a_{ik}^{(t)}$ and let $\sum_{k=1}^{n} | a_{ik}^{(t)} | = z_i$. If M is an upper bound for all n of the z_i, then

$$| a_{ik}^{(t)} | \leqslant M^t$$

for $i, k = 1, 2, 3, \ldots \ldots n$, and all t. This follows from the fact that any row or column may be considered as a vector, and for any vector its magnitude or length is less than or equal to the sum of its components. The inner product of any two such vectors is, by the Schwarz inequality, less than or equal to the product of their magnitudes. Then by induction on t we get the above inequality, and in addition that

$$\sum_{k=1}^{n} | a_{ik}^{(t)} | \leqslant M^t.$$

But by hypothesis—all marginal propensities less than one—M is less than one for all n sectors. Hence the elements in the matrix all tend to zero as t tends to infinity and the sum of the geometric series goes to a finite limit.[1]

[1] I have followed the proof given in Courant und Hilbert, *Methoden der Mathematischen Physik*, Berlin, 1931, p. 16 n. Cf. also Prof. Leontieff, "Computational Problems Arising in Connection with Economic Analysis of Interindustrial Relations," *The Annals of the Computational Laboratory of Harvard University*, vol. XVI, p. 174.

To proceed systematically with the difference equations (16) we first try a particular solution of the inhomogeneous system. Trying a column of constants $\{Y^*\}$ we find that it is a solution if

(17) $$Y^* = [I - a]^{-1}b$$

or, in other words, the particular solution of the inhomogeneous system is the statical multiplier value of the constant injections. Then we seek the general solution of the associated homogeneous equations

(18) $$Iy(t + 1) - ay(t) = 0.$$

By substitution it is found that solutions of the form

$$\left\{ y \right\} = \left\{ \begin{matrix} Y_1 \\ \vdots \\ Y_n \end{matrix} \right\} \lambda^t$$

are the required ones. To state it another way, we seek those values of λ and y which satisfy

(19) $$[I\lambda - a]y(t) = 0.$$

This system has only non-null solutions if the matrix $[I\lambda - a]$ is singular, the necessary and sufficient condition for which is the vanishing of the determinant of the matrix. This last gives us the characteristic equation of degree n in λ with n roots and hence n columns of y each with one arbitrary constant.

The most illuminating way to regard the matrix equation (17) is that given the matrix a, which represents the structure of the economy, we seek those transactions vectors, and the corresponding λ's, which a transforms into other vectors proportionate to them, since

$$ay = \lambda y.$$

The vectors which a transforms in this way are called its *characteristic* or *latent vectors*, and they are determined only as to proportions, being arbitrary to the extent of a multiplicative constant (for which reason they are sometimes called characteristic or eigen rays). To each such vector there corresponds just one *characteristic number*, λ, there being in all n different ones, the n *latent roots* of the matrix a. $[I\lambda - a]$ is called the *characteristic matrix* of a, and $|I\lambda - a| = \Delta(\lambda) = 0$ is known as its *characteristic equation*. By the celebrated Cayley-Hamilton theorem a satisfies its own characteristic equation, *i.e.*, $\Delta(a) = 0$. This equation may be factored into the same components as the corresponding scalar function, hence

$$[I\lambda_1 - a][I\lambda_2 - a] \ldots\ldots\ldots [I\lambda_n - a] = 0.$$

Throughout I shall assume that all the roots λ_i are distinct. No empirical matrix like a can give rise to repeated latent roots, because more accurate observations could always, in principle, be made revealing that the roots were not exactly equal. Repeated roots, or degeneracy, can only arise by definition, in the statement of the problem or in distinguishing the boundary of a region. Given the fact that there are n distinct latent roots, then there exists an $n \times n$, non-singular, square matrix h such that

$$hah^{-1} = c \tag{20}$$

where c is diagonal with the n distinct roots along the principle diagonal.[1] c is unique, and canonical, except for the order in which the λ's occur on the diagonal.

This transformation of similarity (or collineation) may be applied to our problem with striking results. Transform y by h, thus

$$\eta = hy. \tag{20a}$$

Applying (20a) to (18),

$$ah^{-1}\eta(t) = h^{-1}\eta(t + 1),$$

or

$$hah^{-1}\eta(t) = c\eta(t) = \eta(t + 1) \tag{18a}$$

where c is diagonal. In the new co-ordinates, η, the variables are independent of one another (" uncoupled ") and we have n simple, separate first-order-difference equations :

$$\eta_i(t + 1) = \lambda_i\eta_i(t),\ i = 1, 2, \ldots\ldots\ldots n, \tag{18a}$$

which are obviously satisfied by the n simple solutions

$$\eta_i = N_i\lambda_i^t, \tag{18b}$$

with the n arbitrary constants N_i. These are called normal co-ordinates, and by their use we see that there are in our system n modes of behaviour, all independent of one another, any one or all of which may be excited at any one time. This fact is a direct, though scarcely obvious, consequence of the linearity of the system, and it is known as Daniel Bernoulli's Principle of the Superposition of Motions.[2] The matrix a can also be reduced to canonical form if it has repeated roots or a rank less than n, but the form is no longer so simple.

The latent roots along with the transformation matrix h determine the possible behaviour types of the system. Since a is

[1] Cf. Birkhoff and MacLane, *Modern Algebra*, New York, 1946.

[2] Cf. E. T. Whittaker, *Analytical Dynamics*, fourth edition, New York, 1944, p. 186.

not symmetric, these roots may be real or complex. If all the roots are real and positive, the system is non-oscillatory. If any of the roots are real and negative, there may be oscillations of period two. If any of the roots are complex there will be longer-period oscillations; indeed *oscillations of any length are possible on the basis of the multiplier mechanism alone.* Whether real or complex, if all the roots have a modulus greater than one, then the system is dynamically unstable, and correspondingly it is definitely stable if all the moduli are less than one. If some are greater and some less, it is not definitely stable or unstable, but its behaviour depends upon which of the modes of motion happen to be excited.

Not only may this system exhibit oscillatory behaviour—it must do so.[1] To prove this we may proceed in the following way. The characteristic polynomial of the matrix a is

$$|\lambda I - a| = k_0 + k_1\lambda + \ldots\ldots\ldots + k_{n-1}\lambda^{n-1} + (-1)^n\lambda^n,$$

where $k_0 = |a|$, and $k_{n-1} = \pm(a_{11} + a_{22} + \ldots\ldots\ldots + a_{nn})$ and is called the trace of a. But in our matrix all the diagonal elements are zero so that the trace is identically zero. There exists, however, a diagonal matrix similar to a with a's latent roots along the diagonal. Since similar matrices have the same characteristic polynomial and hence the same trace,

$$\lambda_1 + \lambda_2 + \ldots\ldots\ldots + \lambda_n = 0.$$

Therefore all the latent roots of a cannot be real and positive with the result that one or more of the natural modes of motion of our payments system must be oscillatory. If this root (or roots) is real and negative, it will give rise to a cycle of two lags in duration, but if it has an imaginary part, the period may be of any length.

The transformation into diagonal form makes it simple to discuss the question of convergence of the matrix multiplier infinite series. Any power series is easily investigated because

$$\begin{aligned} c &= hah^{-1}, \\ c^2 &= hah^{-1}hah^{-1} = ha^2h^{-1}, \\ &\vdots \\ c^k &= ha^kh^{-1}, \end{aligned}$$

and in general

$$hf(a)h^{-1} = f(hah^{-1}) = f(c).$$

Therefore, calling the geometric matric series $f(a)$, we have for (17)

$$y = f(a)b + a^ty(0),$$

[1] I am indebted to Mr. Robert Solow for perceiving this remarkable result.

and transforming variables by the proper collineation, h, so that $\eta = hy$ and $\xi = hb$, we get

$$\text{(17a)} \qquad \eta = hf(a)h^{-1}\xi + a^t h^{-1}\eta(0),$$

But
$$hf(a)h^{-1} = f(hah^{-1}) = f(c),$$

where c is canonical with the latent roots of a along the principle diagonal. But

$$\text{(21)} \qquad [f(c)] = \begin{bmatrix} f(\lambda_1) & 0 & \cdots & & 0 \\ 0 & f(\lambda_2) & & & \vdots \\ \vdots & & & & \vdots \\ \vdots & & & f(\lambda_{n-1}) & 0 \\ 0 & \cdots & & 0 & f(\lambda_n) \end{bmatrix}$$

Hence $f(c)$ converges if the geometric series of each of its roots converges separately. Therefore the necessary and sufficient condition for the existence of a matrix multiplier is that $|\lambda_i| < |$ for all i, and this is the same as the condition that the entire system be definitely, dynamically stable, which is as it should be.[1] Correspondingly the statical multiplier can be handled with utmost simplicity, although this simplicity is somewhat more apparent than real. From (14) we have

$$\text{(14a)} \qquad h[I - a]h^{-1}\eta = \xi,$$

or

$$\text{(14b)} \qquad [I - c]\eta = \xi,$$

or

$$\text{(14c)} \qquad \begin{bmatrix} 1-\lambda_1 & 0 & \cdots & & 0 \\ 0 & 1-\lambda_2 & & & \vdots \\ \vdots & & & & \vdots \\ \vdots & & & 1-\lambda_{n-1} & 0 \\ 0 & \cdots & & 0 & 1-\lambda_n \end{bmatrix} \begin{Bmatrix} \eta_1 \\ \vdots \\ \vdots \\ \eta_n \end{Bmatrix} = \begin{Bmatrix} \xi_1 \\ \vdots \\ \vdots \\ \xi_n \end{Bmatrix},$$

or

$$\text{(14d)} \qquad \begin{Bmatrix} \eta_1 \\ \vdots \\ \vdots \\ \vdots \\ \eta_n \end{Bmatrix} = \begin{bmatrix} \frac{1}{1-\lambda_1} & 0 & \cdots & & 0 \\ 0 & \frac{1}{1-\lambda_2} & & & \vdots \\ \vdots & & & & \vdots \\ \vdots & & & \frac{1}{1-\lambda_{n-1}} & 0 \\ 0 & \cdots & & 0 & \frac{1}{1-\lambda_n} \end{bmatrix} \begin{Bmatrix} \xi_1 \\ \vdots \\ \vdots \\ \vdots \\ \xi_n \end{Bmatrix}.$$

Therefore in normal co-ordinates each sector is a kind of multiplier value of the corresponding constant injections. This result holds

[1] It is also possible to define convergence conditions for the more complicated case of repeated roots. Cf. Turnbull and Aitken, *The Theory of Canonical Matrices*, London, 1945, pp. 73–4.

formally regardless of convergence, but, exactly as in the case of the simple multiplier, it makes no sense unless the dynamical-multiplier series is convergent.

It is possible to consider any variable injections in terms of step-wise approximations. For a stable system we may write general solution as

$$(22)\qquad \begin{Bmatrix} y_1(t) \\ \vdots \\ y_2(t) \end{Bmatrix} = \begin{bmatrix} a \end{bmatrix}^t \begin{Bmatrix} Y_1 \\ \vdots \\ Y_n \end{Bmatrix} + \begin{bmatrix} I - a \end{bmatrix}^{-1} \begin{Bmatrix} b_1 \\ \vdots \\ b_n \end{Bmatrix},$$

where $Y_1 \ldots\ldots Y_n$ are arbitrary constants and $b_1 \ldots\ldots b_n$ the total injections by sector. If the system has been in equilibrium and b is changed to $b + \Delta b$, we get

$$\begin{Bmatrix} y(0) \end{Bmatrix} = \begin{bmatrix} I - a \end{bmatrix}^{-1} \begin{Bmatrix} b \end{Bmatrix},$$

and

$$\begin{bmatrix} a \end{bmatrix}^{\circ} = \begin{bmatrix} I \end{bmatrix}.$$

Hence

$$\begin{bmatrix} I - a \end{bmatrix}^{-1} \begin{Bmatrix} b \end{Bmatrix} = \begin{Bmatrix} Y \end{Bmatrix} + \begin{bmatrix} I - a \end{bmatrix}^{-1} \begin{Bmatrix} b \end{Bmatrix} + \begin{bmatrix} I - a \end{bmatrix}^{-1} \begin{Bmatrix} \quad \end{Bmatrix}.$$

Therefore

$$(23)\qquad \begin{Bmatrix} Y \end{Bmatrix} = -\begin{bmatrix} I - a \end{bmatrix}^{-1} \begin{Bmatrix} \Delta b \end{Bmatrix}.$$

The solution may then be written as

$$(24)\quad \begin{Bmatrix} y(t) \end{Bmatrix} = \begin{bmatrix} I - a \end{bmatrix}^{-1} \begin{Bmatrix} b + \Delta b \end{Bmatrix} - \begin{bmatrix} a \end{bmatrix}^t \begin{bmatrix} I - a \end{bmatrix}^{-1} \begin{Bmatrix} \Delta b \end{Bmatrix},$$

which states that the transactions vector commences at its previous value and moves by some complicated path to the new matrix-multiplier value as given by the first term (the second term goes to zero with the lapse of time).

Total Transactions

Likewise we may discuss the behaviour of total transactions in the dynamical system. Writing

$$\begin{Bmatrix} y(t + 1) \end{Bmatrix} \text{ as } \begin{Bmatrix} y(t) \end{Bmatrix} + \begin{Bmatrix} \Delta y(t) \end{Bmatrix}$$

we may restate (16) as

$$(16a)\qquad \begin{bmatrix} I - a \end{bmatrix} \begin{Bmatrix} y \end{Bmatrix} = \begin{Bmatrix} b \end{Bmatrix} - \begin{Bmatrix} \Delta y \end{Bmatrix}$$

or as

$$(16b)\qquad \begin{Bmatrix} y \end{Bmatrix} = \begin{bmatrix} I - a \end{bmatrix}^{-1} \begin{Bmatrix} b - \Delta y \end{Bmatrix}$$

which says that the transactions vector is always equal to the matrix-multiplier value of injections less absorptions (or plus injections if Δy is partially or wholly negative) due to the motion of the system itself. Premultiplying (16a) by

$$\begin{bmatrix} 1 & 0 & 0 & \ldots\ldots & 0 \\ 0 & 1 & & & \vdots \\ \vdots & & & & \vdots \\ 0 & & & 1 & 0 \\ 1 & 1 & \ldots\ldots & 1 & 1 \end{bmatrix}$$

and considering only the last row, we have

$$\sum_i \Delta y_i = \sum_i b_i - \sum_i (1 - \alpha_i) y_i, \tag{25}$$

which states that the rate of change per unit time of total transactions is equal to aggregate injections (" investment ") less aggregate absorptions (" savings "). Here also there is an exact analogy with the simple multiplier.

The Lag in the Flow of Payments

One of the many uses which may be made of the dynamic-matrix multiplier is to illuminate the question of what is the nature and magnitude of the lag in the income flow in a society. The answer is that there is no *one* lag but many, endlessly compounded. If we follow the path of a dollar injected we find that in the following period some fraction (which fraction depends on the payments structure of the particular industry) only will again become income. Some part of the balance will go to other industries, which in turn will do the same, and so on *ad infinitum*. Therefore there is no simple income–expenditure lag as ordinarily assumed in multiplier analysis, but rather there is a distributed lag that spins out the consequences of any disturbance much longer than any inspection of industry or consumer lags by themselves would lead us to expect.

Thus in an aggregative model with a single lag we are led to speak of " days " or " weeks " or at most " months," which would give rise to such short dynamical adjustments that they might well be neglected. Indeed, this is the only rational reason which can be given to support Keynes's refusal to make the multiplier explicitly dynamical in its form. But the moment we compound these short lags we get something like an equivalent lag that is much longer and certainly not negligible. Therefore if we wish to make aggregative analysis as a simple, though crude, approximation to reality, we must insert a fictitious lag that looks much longer than the observable constituent lags. The evidence from

the income velocity of money is that the order of magnitude of the equivalent or average lag is three or four months.

It is important to make some qualitative estimates of the effect of introducing many lags, although exact comparison is impossible, since there is no actual, single lag to compare with the lag in the simple multiplier. From (25) we have

$$\Delta y_1 + \Delta y_2 + \ldots\ldots\ldots + \Delta y_n = -\sum_i (1 - \alpha_i) y_i,$$

whereas if we have only a single-households lag,

$$\Delta y_n^* = -\sum_i (1 - \alpha_i) y_i.$$

Practically without exception, total transactions, national income and the other sector outputs move up and down together. Therefore all the Δ's will tend to be of the same sign, and hence we must divide the same quantity of motion into n parts. Consequently, the rate of change of national income will be very much slower than a single-lag mechanism would lead us to expect. To be more precise, corresponding to each latent root there is a solution, and for each solution all the sectors preserve fixed ratios to one another through any motion. Hence we may rewrite (25) as

$$\text{(25a)} \quad (k_1 + k_2 + \ldots\ldots\ldots + k_{n-1} + 1)\Delta y_n = -\sum_i (1 - \alpha_i) y_i$$

where the k's are the given and constant ratios, which are all or nearly all positive because of the tendency of all the sectors to move in sympathy. Hence

$$\text{(26)} \qquad \frac{\Delta y_n}{\Delta y_n^*} = \frac{1}{k_1 + k_2 + \ldots\ldots\ldots k_{n-1} + 1} < 1,$$

and, in fact, it is likely to be very much less than one, indicating that the multiple-lag system is markedly less stable than the simple one.

The point is that the money filters through this complicated machine in many steps and very slowly. But this is not all; the money does not move in step, but some becomes income again and some does not until later, and some never does. As a result the scattered parts of a single injection may get out of step, and there arises the possibility of qualitatively different behaviour, *e.g.*, oscillation. The nature of the solutions is determined by the roots of the characteristic equation of the matrix. Since it is an empirical fact that this matrix is not even approximately symmetrical, there is no necessity for it to have real roots. There is also, however, no necessity for it to have complex roots, but a simple numerical example will easily demonstrate the possibility. Barring a negative marginal propensity to consume, the simple multiplier cannot oscillate but must go unswervingly to its appointed end.

I have stated that instead of one long lag we have a type of distributed lag. It has sometimes been supposed that consumption depends on income according to some sort of distributed lag, but this is made as an hypothesis. From the dynamical-matrix multiplier we may show that it is so and also exactly in what way. Taking from (16) the purely dynamical part, we have

$$\left[a\right]\left\{y(t)\right\} = \left\{y(t+1)\right\}.$$

We may partition it conformably into

$$\left[\begin{array}{c:c} g & c \\ \hdashline f & 0 \end{array}\right] \left\{\begin{array}{c} y_m(t) \\ \hdashline y_n(t) \end{array}\right\} = \left\{\begin{array}{c} y_m(t+1) \\ \hdashline y_n(t+1) \end{array}\right\}, \tag{27}$$

from which we get

$$\begin{aligned} \left\{y_m(t+1)\right\} &= \left\{c\right\} y_n(t) + \left[g\right]\left\{y_m(t)\right\}, \\ &= \left\{c\right\} y_n(t) + \left[g\right]\left\{c\right\} y_n(t-1) + \left[g\right]^2\left\{y_m(t-1)\right\}, \\ &\quad \vdots \\ &= \left[\sum_{s=0}^{s=i}\left[g\right]^s y_n(t-s)\right]\left\{c\right\} + \left[g\right]^{i+1}\left\{y_m(t-i)\right\}. \end{aligned} \tag{27a}$$

Because a converges, g will do so even more rapidly. Therefore the last term on the right-hand side disappears as we let i increase without limit. We wish to know how present consumption depends on past income. The list of current consumer purchases is $\left\{c\right\} y_n(t)$, and from (27) we have, indicating a row matrix by $< \quad >$,

$$< f > \left\{y_m(t)\right\} = y_n(t+1). \tag{27b}$$

Therefore the consumer purchases at any time, $t + 2$, are given by

$$\left\{c\right\} < f > \left[\sum_{s=0}^{\infty}\left[g\right]^s y_n(t-s)\right]\left\{c\right\}, \tag{28}$$

in which all the elements are given constants with the exception of the incomes for all previous time. Consequently we find that present consumption depends in a perfectly definite, and in principle derivable, way on all previous income, *i.e.*, there is a distributed lag involved in the consumption function.

R. M. Goodwin

Harvard University.

REVIEWS

Two Memoirs. By JOHN MAYNARD KEYNES. (London: Rupert Hart-Davis, 1949. Pp. 106. *7s. 6d.*)

THIS slim little book will bring to many both joy and regret. Joy that they can once again read Keynes's limpid English, and be fascinated by the deft touches with which he can sketch a character unforgettably in a couple of sentences. Regret that this is almost certainly the last unpublished work from his pen that will see the light of day.

The two essays that it contains have this much in common. Both of them—the first *Dr. Melchior: a Defeated Enemy*, the second *My Early Beliefs*—were written for an intimate group of old friends. They are printed here as they were written. As David Garnett briefly explains, the allusions and private jokes readily understood in that little circle remain unexpunged; the reader "is hearing what was written only for the ears of those to whom the writer could speak entirely without reserve, and who would never mistake his meaning."

Dr. Melchior is four things in one. It is a remarkable portrait of a remarkable man. It is a fascinating picture of backstairs negotiations to stir memories and evoke analogies in the minds of many later negotiators of the backstairs. It is a contribution of exceptional importance to a phase of history. It is a tragedy of great events and little men. As one reads it again and again, I believe that one's abiding impressions are the first and the last—Melchior the man, and the tragedy of little men.

I never myself met Melchior. Yet from the first time I heard this memoir read (it was not as a member of Keynes's group of intimates) the picture of Melchior has been indelibly in my mind. The German financiers are for the first time meeting the English, Americans and French in a crowded railway carriage in a siding at Trèves:

> "A sad lot they were in those early days, with drawn dejected faces and tired staring eyes, like men who had been hammered on the Stock Exchange. But from amongst them stepped forward into the middle place a very small man, exquisitely clean, very well and neatly dressed, with a high stiff collar which seemed cleaner and whiter than an ordinary collar, his round head covered with grizzled hair shaved so

> close as to be like in substance to the pile of a close-made carpet, the line where his hair ended bounding his face and forehead in a very sharply defined and rather noble curve, his eyes gleaming straight at us, with extraordinary sorrow in them, yet like an honest animal at bay. This was he with whom in the ensuing months I was to have one of the most curious intimacies in the world, and some very strange passages of experience—Dr. Melchior."

The problem was the feeding of Germany. The difficulty its finance and the unwillingness of Germany to surrender her last bargaining counter—her merchant marine. In the countless crises of the past thirty years this was a minor crisis. Yet all the elements of all crises are here delineated. Ignorance, incompetence, pig-headedness, cupidity. The breakdown where a breakdown was disastrous to all parties. The meaningless farrago of protracted polylingual discussions. The misunderstandings of mistranslations. National pride and the impossibility of being the first to surrender from an untenable position. Deadlock, only to be broken down, if at all, by a personal appeal and a move behind the scenes. All this was there at Trèves, at Spa and all the other places where the negotiations dragged on. And, as so often, the deadlock was resolved by a curious personal intimacy and mutual trust between opponents—this time between Keynes and Melchior.

But Keynes and Melchior are not the only players. There appear a succession of British admirals, each more eccentric than the last, the powerful figure of Foch increasingly bewildered as the orderly military world gives place to the unintelligible civilian world, the Supreme Economic Council escaping from insoluble great problems into insoluble trivialities. And much of the play proceeds against the Wagnerian background of Spa, where the Armistice Commission had succeeded to the villas of the German High Command, and the ghosts of Wilhelm II, Hindenburg and Ludendorff still seemed to strut in the corridors.

The intimacy of Keynes and Melchior did not pass away. They were to meet again after Keynes had resigned. He read to Melchior the chapter on President Wilson from his then unpublished book. And that scene—the end of the memoir—is the most moving of all. For we see Melchior's gradual comprehension of the tragedy:

> "This, then, was the other side of the curtain; neither profound causes, nor inevitable fate, nor magnificent wickedness. The Tablets of the Law, it was Melchior's thought at that moment, had perished meanly."

My Early Beliefs is in a very different key. But to an understanding of Keynes it is, I think, more important than almost anything else that he published. The issues are almost infinitely remote from economics. Yet here Keynes has dissected his own mind and his own prejudices, and has described the influences which made it what it was. No one who is interested in Keynes as a person and as a teacher can afford not to have read this essay.

To anyone not steeped in the intellectual fashions, the minor and sometimes major notabilities of the Cambridge of 1900–14 and the literary movements of that age, this essay may be hard reading. David Garnett has provided a vocabulary of nicknames; but he has rightly resisted the temptation to overlay it with an indigestible coating of literary annotation.

The occasion for this essay was a paper to the same group of intimates by David Garnett himself, discussed in Keynes's absence and subsequently sent for him to read. The subject was D. H. Lawrence, his antipathy to the group as a whole and to Keynes in particular, and the break-up on this account of Garnett's own friendship with Lawrence. Keynes was provoked to put his own thoughts and recollections on paper. This essay is the result.

It begins, naturally, with Keynes's recollections of his meetings with Lawrence, the setting and the subjects of argument. But in a page or two Keynes has begun to ask himself what was the mental history of himself and his friends in the dozen years before the first war. I could not attempt, even were I competent, to summarise what has already been compressed by a master of compression. The picture that emerges is of a group of brilliant minds, utterly detached from the world, determined to face intellectual problems with a singleness and courage that their successors by a generation seldom aspire to parallel, but frivolous brittle, inhuman. I will allow Keynes's words to speak for themselves:

> "If, therefore, I altogether ignore our merits—our charm, our intelligence, our unworldliness, our affection—I can see us as water-spiders, gracefully skimming, as light and reasonable as air, the surface of the stream without any contact at all with the eddies and currents underneath. And if I imagine us as coming under the observation of Lawrence's ignorant, jealous, irritable, hostile eyes, what a combination of qualities we offered to arouse his passionate distaste; this thin rationalism skipping on the crust of the lava, ignoring both the reality and the value of the vulgar passions, joined to libertinism and comprehensive irreverence. . . . All this was very unfair to poor, silly, well-meaning us. But that is

> why I say that there may have been just a grain of truth when Lawrence said in 1914 that we were ' done for '."

Keynes's essay shows the elements out of which this mental state was compounded. The immense influence of Moore's *Principia Ethica*, and the still greater influence of Moore as a person. The belief that "nothing mattered except states of mind, our own and other people's of course, but chiefly our own." The interminable arguments about these states of mind and what contributed or did not contribute to a good state of mind. The view that intensity and passion and contemplation and communion were what mattered and that pleasure was irrelevant. Keynes stresses that not only had they thrown hedonism out of the window; they were the first of their generation to escape from the Benthamite calculus.

> "But of another eighteenth century heresy we were the unrepentant heirs and last upholders. We were among the last of the Utopians, or meliorists as they are sometimes called, who believe in a continuing moral progress by virtue of which the human race already consists of reliable, rational, decent people, influenced by truth and objective standards, who can be safely released from the outward restraints of convention and traditional standards and inflexible rules of conduct, and left, from now onwards, to their own sensible devices, pure motives and reliable intuitions of the good."

In later years, Keynes shed almost wholly the brittle chrysalis of those earlier years. He acquired the broad humanity which was foreign to that group and that epoch. Indeed it would seem that it was always there and always breaking out. But he remained through life, I think, a meliorist. We can see again and again in his economic writing the purpose to set a rational humanity free from its fetters.

The fascination of this essay, I have said, is to see the mature Keynes dissect and analyse the immature Keynes. Those of us who knew him best in his later years, and knew him as one essentially of our own generation, are apt to forget that he was equally, and perhaps primarily, of his own generation. We cannot fully understand him if we forget that. Here we have Keynes set among his own contemporaries and their thoughts by the one pen which could do it with certainty, precision and understanding.

AUSTIN ROBINSON

Sidney Sussex College,
Cambridge.

The Veil of Money. By A. C. PIGOU. (London: Macmillan, 1949. Pp. viii + 150. 8*s*. 6*d*.)

PROFESSOR PIGOU had intended this book to be "something thoroughly elementary," but, as it turned out, it failed to preserve this character. It is still an "introduction," but one "only suitable for students and other persons prepared to make some intellectual effort" (Preface, p. v).

What ground ought an Introduction to cover? It is something less than a text-book. A text-book offers a systematic survey of available knowledge within its limits. An introduction prepares the student for the text-book by linking the ideas from which the text-book starts with the unsystematised knowledge which the student is likely to possess.

Professor Pigou divides his book into two parts, one on "Money" and the other on "Money Income." The former, even for an introduction, is rather thin. It is not quite clear what previous knowledge the reader is expected to have. The nature of bank credit and the credit operations of bankers seem to be taken for granted. "Bank money consists of bank balances . . . *plus* overdraft facilities" (p. 6). Is that all that need be said in regard to the nature of bank money?

Professor Pigou offers no explanation of the process by which money comes into existence. There are scattered allusions to it. The initiative comes from the side of bank money, not from the side of currency (p. 10). The banks may prevent money from expanding "whether by raising money rates, by applying severer tests of credit worthiness, or otherwise" (p. 10). Reduction of a pure paper currency is effected by "a net repayment of loans that have been made by the banks" (p. 12).

His conclusion that contractions in money income are "almost always and almost entirely brought about by way of reduction in . . . income velocity, not by contraction in the stock of money in circulation" (p. 13) is a purely empirical one.

Money income forms the subject of Part II. All through this Part Professor Pigou lays great stress on the effects of the rate of interest. He professes to follow Keynes in setting up "a sort of representative rate of interest whose movements may be taken as typical of those of the 'complex of rates' found in real life" (p. 74).

But this representative rate of interest does not represent the short-term rate, the "money rates" of the banks. It is that which is equated to Keynes's "marginal efficiency" of capital (p. 87) or to Marshall's yield of the "marginal machine" (p. 88).

Professor Pigou ignores the difference between these two versions, but either way the implication is that the representative rate is a *long-term* rate, and later on (p. 140) he contrasts it with the short-term rate.

When real income is given, income velocity is " an increasing function of the rate of interest " (p. 81), because the higher the rate of interest the greater is the attraction of investing the marginal unit of cash by comparison with " the several sorts of non-material benefits derived from real resources held in the form of money."

And " the stock of money will be larger, the higher the rate of interest." That is so because, when the community requires more money, there is " a drain from the banks into circulation, which induces the banks to take action calculated to raise interest rates " (p. 84).

If the banks chose " to alter the function relating the stock of money to the rate of interest, by for example creating new notes," the rate might not have to rise, but, if that function be assumed unchanged, the stock of money in circulation will expand in response to upward movements in the rate of interest (p. 85).

What does Professor Pigou mean? The banks can *prevent* an increase in the stock of money " by raising money rates " (p 10). But it is the short-term rate of interest which they have power to raise, not the " representative " rate. In response to given upward movements in the *short-term* rate of interest, the stock of money does not expand but contracts.

When he says that the drain into circulation " induces the banks to take action calculated to raise interest rates," he seems to have in mind, not the immediate rise in the short-term rate, but the effect of a restriction of the supply of money in raising the representative rate.

When the demand schedule for real investment rises, a corresponding rise in the representative rate of interest does not immediately result. In the first instance the demand may be supplied by the creation of money, and it is the action of the banks in limiting the supply of money that raises the representative rate. Professor Pigou's statement that " the stock of money will be larger, the higher the rate of interest " is just the reverse of the true relation. Income velocity is " an increasing function of the rate of interest," because a high rate of interest induces people to hold *smaller* money balances.

" If all other things are equal, but the demand function for real investment stands higher " in situation B than in situation A,

the rate of interest will be higher in situation B (p. 92). Therefore "the income velocity of money and the stock of money in circulation must both be larger" (p. 93). Therefore money income is higher. And, money wages being supposed given, employment and consequently real income will be larger (p. 95). This is a mistake. The income velocity of money will be larger, but the stock of money will be *smaller*. Whether money income will be larger depends on the action of the banks.

In any case is it not undesirable to base monetary analysis on the antithesis between income velocity and the stock of money? The operations of the banks and the investment market usually affect money income *directly*, not by way of separate effects on quantity and velocity. The quantity of money becomes important in so far as it is taken as one of the guiding factors in monetary policy.

In an early chapter Professor Pigou asks, is money a veil? "In the years preceding the first world war" economists used to call money a mere "garment" or a "veil," to be stripped off in order to see the underlying reality. The two metaphors are not equivalent; a garment protects, while a veil conceals. It is the veil which Professor Pigou has, I think, preferred in the past. He now points out that money cannot be regarded as "a mere epiphenomenon, having no positive effects on the underlying reality" (p. 27). "The goods and services which compose the reality of economics are not themselves ultimate values" (pp. 19–20). But Professor Pigou seeks all through to express monetary facts in terms of real income, real investment, real resources and the like. In doing so, he is a little worried by the problems of averaging involved in measuring the purchasing power of money (pp. 56–62). And he resorts to rather strange devices to ease the intellectual effort demanded of his readers, for example, when he compares "the attractiveness of the marginal apple (apples being taken to represent goods in general) that is held in the form of money" with "the attractiveness of the marginal apple that is held in the form of real capital" (p. 77).

R. G. HAWTREY

London.

Overhead Costs—Some Essays in Economic Analysis. By W. A. LEWIS. (London: Allen & Unwin, 1949. Pp. 200. 15*s*.)

THIS book consists of seven essays, each dealing, more or less closely, with some problem connected with the general title. Several have already been printed. Some consist of general

theoretical analysis, illuminated by apt illustrations; some deal with the problems of special activities. Professor Lewis' approach is not new; but he has many desirable elaborations and corrections to make to previous theory, while several of his applications go far beyond previous discussions on the subject. It is impossible in the space of a review to refer to many of these contributions. I shall therefore list, with very brief comments, the articles which make up the book and then discuss briefly what seems to me to be Professor Lewis' central theme.

I. *Fixed Costs* deals with price policy in general (a point to which I shall return), and contains a valuable contribution to the road–rail controversy. It needs more careful reading than the rest of the book.

II. *The Two-part Tariff* is a useful analysis of the reasons for making charges in this way and of their social implications.

III. *The Economics of Loyalty* and IV. *The Inter-relations of Shipping Freights* are both more specialised applications of general points already made in the earlier articles. They are probably of less general interest than the other articles.

V. *Competition in Retail Trade*, first published in *Economica* in 1945, added precision to many rather hazy ideas on this subject. It is indispensable to those interested in retailing and imperfect competition.

VI. *Monopoly and the Law*, written for lawyers, contains little that is new for economists. Professor Lewis advocates a drastic policy of prohibition (though with exceptions). It therefore seems odd that in his last essay, when he is dealing with public corporations established in competition with private firms, he recommends that in slumps these corporations and their competitors should agree on an appropriate price policy. It is true that he says that this policy must be approved by the Tribunal he wishes to have appointed; and it may be, as he suggests, that it is the only way of avoiding unfairness; but it is not competition.

VII. *The Administration of Socialist Enterprises* was written for this book. It is a slighter article than most of the others, in view of the complexity and size of the theme. Professor Lewis emphasises suggestions for making such enterprises accountable to the public, and the desirability of giving them more explicit instructions on general policy than has hitherto been done. He makes some remarks on efficiency and decentralisation and then goes on to price policy.

The first and last articles, especially, deal with price policy, particularly in relation to public utilities and State-owned

monopolies. Professor Lewis points out that the usual statement that, if the price mechanism is accurately to allocate resources, price must equal marginal cost, contains many hidden difficulties. Costs may be divided into those which are escapable and must be covered if enough resources are to be attracted into or kept in the particular use, and those which are inescapable and do not affect output. But some costs are escapable immediately and some only gradually; some are indivisible and can be escaped if there is a large variation in output but not a small (that is, they do not enter into ordinary marginal cost); and some are finally inescapable. (This brief analysis should be admirable for students grappling with the long and short periods.) Professor Lewis would have price in public-utility undertakings cover long-run and not only short-run marginal costs. This enables the concern to earn amortisation on that part of its equipment which is still required, which otherwise it could not, a point to which he attaches considerable importance. It is true that it also excludes in a depression some demands which could be met without wasting resources, and that it may slow up the process of eliminating excess capacity; but neither of these factors are, in his view, important as far as public utilities are concerned; for other concerns he leaves the argument, though not his view on policy, open.

He would also have receipts from consumers cover "escapable indivisible" costs; clearly, if these are not covered and the concern is privately owned, the assets concerned will not be replaced. Since, however, these costs do not enter into marginal costs they should not, he says, be added to the price of the marginal unit. Ideally they should be extracted from consumer and producer surpluses; that is to say, from those who benefit from the undertaking in proportion to their benefit. And in any case the costs should be incurred only if they are less than these surpluses. Professor Lewis sees little hope of touching producer surplus. Consumer surplus might be tapped either, sometimes, by a two-part tariff, or, if this is unsuitable, by price discrimination.

But this is not all. In his view those who benefit from the undertaking should pay, out of their consumer surplus, not only those indivisible costs which are escapable, but also those (such as railway tracks still needed) which are useless elsewhere and do not depreciate, and are therefore costless. The only losses which should be assessed against the undertaking are those due to imperfect foresight; for example, interest and amortisation on equipment no longer required.

This is a logical case, but one that can be sustained only with confidence in the particular circumstances examined by Professor Lewis. Thus whether short- or long-run marginal cost should be covered depends upon a balance of considerations; for many industries this might come down the other way from that for public utilities. And whether escapable indivisible costs, and still more inescapable ones, should be borne by consumers' surpluses depends upon views of equity and the practicability of getting at these surpluses. Subsidies may sometimes be better.

The analysis, however, is penetrating, and the technique should be valuable in dealing with many practical problems. Unfortunately, in his last essay, Professor Lewis does not appear to use his earlier analysis, though he refers to it. I believe that anyone reading this article without the first might suppose that Professor Lewis considers that public corporations should cover their interest charges, inherited or otherwise. Clearly he does not, but the wording here is ambiguous.

In conclusion, it should be noted that, in many of the articles, Professor Lewis makes considerable use of the concept of joint costs.

RUTH COHEN

Newnham College,
Cambridge.

The Theory of Capitalist Development. By PAUL M. SWEEZY. (New York: Oxford University Press, 1942. Pp. xiv + 392. $4.00. British edition, with a Foreword by Maurice Dobb. London: Dennis Dobson, 1946. Pp. xiv + 398. 18*s*.)

THIS book's sub-title, "Principles of Marxian Political Economy," indicates clearly its scope and purpose. It contains three main elements: first, an exposition of the theoretical basis of Marxian economics—the labour theory of value, and the theories of surplus value, the price of production and the falling rate of profit; secondly, a discussion of crises and the so-called breakdown (Zusammenbruch) of capitalism; thirdly, a survey of monopoly capitalism, imperialism and fascism. Unlike many works of Marxist orthodoxy it is written in a clear, crisp style and is free from blind dogmatism and from crude abuse of opponents.

The best part of Dr. Sweezy's exposition of basic theory is his emphasis on the *social* content of Marx's economics. For Marx and his followers, economics is concerned with "the social (inter-personal) relations of production and distribution. What these relations are, how they change and their place in the

totality of social relations would seem to be the . . . subjects of enquiry." (P. 3.) For them, also, "the quantitative relation between things which we call exchange value, is in reality only an outward form of the *social* relation between the commodity owners, or . . . between the producers themselves. . . . In other words, the exchange of commodities in an exchange of the products of the labor of individual producers." (P. 27.) In market economy (or, as the Marxians term it, "commodity production") relations between men assume the form of relations between things. (This is what Marx meant when he spoke of the "fetishism of commodities"—one of his most pregnant concepts.) From this point of view, Dr. Sweezy criticises effectively the "scarce means with alternative uses" definition of economics on the ground that it considers primarily relations between men and things and ignores the most significant relations between men and men; that is to say, the terms on which, in a society based upon the division of labour, one man works to satisfy another man's wants. Dr. Sweezy condemns the scarcity theory as "a process of constructing and interrelating concepts from which all specifically social content has been drained off." (P. 5.)

So clear and trenchant is the author's exposition of the weakness of orthodox economic theory that it is a pity that he has taken up so much of the book to restate the mazy complexities of the Ricardo–Marxian theory of value, ignoring all the objections to it made during the last eighty years. This is all the more to be deplored in that the labour theory of value is not logically necessary to the Marxian scheme of capitalist development. What the latter *does* require is the Falling Rate of Profit. But this, although orthodox Marxists like Dr. Sweezy will not admit it, can be demonstrated (subject to qualifications that are substantially the same as those given by Marx in *Capital*, Vol. III, Ch. 14) on the principles of any bourgeois economist—Marshall, or Cassel, or Keynes.

In his Chapter VII (The Transformation of Values into Prices), Dr. Sweezy attacks the problem (usually known as "the Great Contradiction") of reconciling the labour theory of value, a uniform rate of profit, varying compositions of capital and prices determined by competition. As an orthodox Marxist he arrives at the conclusion that, even in equilibrium, prices diverge from values. But instead of accepting Marx's formulation of this solution (published by Engels in 1894) he gives Bortkiewicz's, which is logically and mathematically more accurate (and not hitherto available in the English language). All this is very

interesting to any one who, like the reviewer, is an amateur of mathematico-economic curiosities; but it seems a pity to spend so much time on formal solutions of unreal problems.

The second main topic of the book—crisis theory—is concerned with more living issues. The author shows that practically every useful theory of economic fluctuations known to modern economists has been anticipated by Marx. Much of Marx's work, disinterred from the later volumes of *Capital* and from the *Theorien über Mehrwert*, seem very fresh to-day. But Marx is not merely an eclectic. The unifying thread running through his work is the rejection of the concept of equilibrium. It is true that Marx's "scheme of simple reproduction" involves equilibrium; but Marx evolves this scheme only to show how unrealistic it is. For him, crises are not accidental deviations from a stable trend, but essential parts of a process of development—and ultimately of degeneration. In other words, crises are stages on the road to the final crisis.

Underconsumption, disproportion between branches of production, disproportion between investment and consumption, the relation between output of consumption goods and of capital goods: all these theories are subjected to review. [May I comment in passing that the mathematical proof of inconsistency between investment and consumption given in the Appendix to Chapter X (based on Otto Bauer) is formally invalid, since λ (the factor of proportionality between consumption and means of production) is treated as a constant instead of as a variable?] In both this and the subsequent section the author discusses in detail the views of writers such as Bernstein, Tugan-Baranowsky, Rosa Luxemburg, Hilferding and Bukharin, not otherwise accessible in English.

When we come to modern tendencies in capitalism—monopoly, imperialism, fascism and the drift to war—we are in a field where Marxism shows both its greatest strength and its greatest weakness. Its strength, because it accepts, as no other body of economic thought does, the existence of fundamental inconsistencies ("contradictions") in an economic system based upon the market and the profit motive. Its weakness, because its exponents are seduced by their passions into unwarranted certainty as to the future course of social evolution. This book illustrates both these qualities. Dr. Sweezy makes some interesting observations in his Chapter XV on monopoly—on the possible co-existence of high monopoly profits with a low marginal rate of return on capital, and the effects of this upon investment, employment and

the utilisation of inventions. His discussion of imperialism and allied tendencies is unhackneyed, alert to facts and full of interesting suggestions; but it is marred by facile optimism. The postulation that "a military defeat of German fascism . . . would be followed by the collapse of capitalist rule and the victory of socialism over substantially the entire European continent" (p. 359) reads sadly in retrospect. It suggests that socialism, no less than capitalism, has its contradictions, to which Marxists are as blind as bourgeois economists are to those of capitalism.

H. D. Dickinson

University of Bristol.

Voraussetzungen der Vollbeschäftigung. By K. Gruber. (Vienna: Springer, 1946. Pp. 89. Austrian Sh. 7.20, Sw. Fr. 6, or $1.40.)

Die Vollbeschäftigung im Kreuzfeuer. By J. Rakowski. (Berne: A. Francke, 1946. Pp. 52. Sw. Fr. 2.80.)

Dr. Gruber's book consists of three parts. The first deals with effective demand, and is a general exposition of Say's Law and of the more important leakages which may cause overproduction. The second part is called "Disturbances in Circulation" and presents a model of a trade cycle started off by an increase in thrift. (In the last section of this part, other factors which may initiate a deflationary cycle are listed but are not discussed in detail.) The third part deals with trade-cycle policy by the State, largely by advocating anti-cyclical public works, an official anti-cartel policy, paid leave for employees and promotion of labour mobility.

The book can perhaps best be described as the German equivalent of Mrs. Robinson's popular exposition of the General Theory in her *Introduction to the Theory of Employment* (not known to the author and not noted in his bibliography) *minus* liquidity preference and *minus* expectations, but *plus* a dash of Spiethoff and more than a dash of Schmalenbach. Symbols are freely employed, but no mathematics.

As a popular exposition of basic Keynesian ideas, blended with some current German thought, this book is successful. There are some parts that would clearly be in need of further development. The author is, and has been for some years, the Austrian Minister of Foreign Affairs, and it may be surmised that the book bears the marks of a certain amount of substitution of time between the author as an economist and the author as a Foreign Minister.

More specifically, there is no satisfactory discussion of inflationary processes, specially not of inflationary (and also deflationary) processes starting from the cost side. In that respect the present book is entirely a period piece of the 1930s. Costs are declared in a general way to be more rigid than prices, which precludes discussion of such phenomena as wage-induced inflation.

The author is very critical of cartels and monopolies. In his view they not only interfere with the right allocation of resources but they also reduce the willingness to invest and generally intensify trade cycles. It may be doubted, however, whether this is a substitute for a more profound analysis. The point of view put forward by Professor Schumpeter that monopolies may be vehicles of economic progress and also the possibility that monopolies may lead to additional investment through the ploughing back of their excess profits or for reasons of economic strategy are important issues which cannot be entirely omitted.

Another weakness of the book is that it is entirely written for a closed economy, with the exception of three pages (pp. 62–5) which deal with foreign-trade factors but do not deal with the central problem of the balance-of-payments difficulties connected with national employment policies.

Among particular points which are perhaps in need of revision the reviewer would especially mention the statement (on p. 21) that an increase in the monetary circulation will lead to increased liquidity and a fall in the velocity of circulation, if the limitations of production facilities prevent an expansion of output. This seems a most surprising statement illustrative of the author's neglect of expectations, business psychology and accumulative processes. On p. 22 the statement is made that hoarding of money is an indication of lack of confidence; this is surprising in someone who has experienced two inflations. " Crisis of confidence " are hardly the right words to describe the processes which lead to holdings of excessive amounts of money. It is not generally true that the financing of new plants—as distinguished from replacements, etc.—depends on decisions of individual income-earners; it has been shown that in the U.S. as well as in the U.K. the bulk of new plants is now financed by retained profits no less than replacements are. On p. 31 there is confusion between progressive costs and high unit costs; in fact, an under-utilised mechanised plant works under conditions of degressive costs (although high costs) not progressive cost as stated by the author. The explana-

tion on p. 69 of the forward-rising demand curve for inferior goods is very spotty.

The most interesting points in the book are the linking of basic Keynesian ideas to technical rigidities in the economic system, the underlying assumption that a deficiency of savings is just as likely to produce an economic crisis as an excess of savings and the author's suggestion for the creation of special "*Umstellbetriebe*," plants which are from the beginning designed for easy switch-over from one type of production to another, and specially from the production of capital goods to the production of consumption goods and *vice versa.*

Dr. Rakowski's booklet on "full employment under fire" is interesting as a Swiss reflection of the debate in Britain on full employment which may perhaps briefly be described as the Beveridge–Hayek Debate. In the Swiss discussion, Roepke plays the part of Hayek, and Jöhr and Böhler play the part of Beveridge (although with typical Swiss caution). The author of this booklet is a sturdy Swiss Liberal, deeply sceptical of the results of the Keynesian approach. Although he endeavours to take up an eclectic attitude in the Big Disputation, in fact, his final position seems little different from that of Hayek, except that it is somewhat less dramatically put. His end result is that the planning required by the Keynes–Beveridge approach could not be accommodated within the framework of a free-market economy, and that the "controlled economy" will in fact lead to the "security of the barracks."

His main criticisms of the Keynesian theory of employment are three. First, that it excludes price–cost relationships by basing its analysis entirely on the behaviour of global quantities, such as saving, investment and the like, without considering whether perhaps those global quantities are themselves the results of price–cost relationships within the various sectors of economic life. Second, that Keynes begged a crucial question when he took it for granted that abstract reasoning can directly lead to prescripts for economic policy without concrete causal analysis. Third, that it fails to consider the general political and economic consequences of the planning measures suggested.

This is a thoughtful little book which will repay reading. The economics is generally very sound. There seems, however, a serious slip on p. 13, where the condition of full employment seems, as stated, to require a value of investment which at factor cost corresponds to savings and depreciation in the other sector; the

true equilibrium condition is where the expenditure from the incomes created by investment corresponds to savings from incomes generated in the consumption-cost sector.

The book is typically Swiss in its fundamental liberalism; it is also startlingly old-fashioned even though dealing with a contemporary issue. For example, on p. 24 Alfred Marshall as well as W. Lexis are described as belonging to the " youngest generation " of *Eco-Mathematiker*, that is of econometricians.

H. W. SINGER

Lake Success,
New York.

Freedom and Order. By EDUARD HEIMANN. (New York: Charles Scribner's Sons, 1947. Pp. xiv + 344. $3·00.)

THE most valuable advice a reviewer can give to a reader of this book is to read it to the end, and not to judge it by its early chapters. It opens in the style of political journalism—scrappy, incoherent, rather superficial, and clumsily written. It then passes through a phase of political theory—competent, readable, but not arrestingly original. It ends in social philosophy—earnest, closely reasoned, powerfully expressed, and often penetrating in its observations. It is, no doubt, this concluding section which prompted Dr. Reinhold Niebuhr to describe it as " an able and helpful discussion of the basic problems which face us in our contemporary civilisation." The loose structure and uneven quality of the book are explained in the Preface, in which Dr. Heimann tells us that he has made use of the substance of several articles dealing with a wide range of topics. This method of book-making is fraught with peril, especially when the articles were written under the sharp impact of current or recent events. The author is most stimulating when he makes a frontal attack on problems that are fundamental and ageless.

The main theme is one of the oldest in human thought, the conflict between freedom and order in human society. In the Middle Ages, Dr. Heimann argues, the religious and the political realms were merged into an order without freedom. The Reformation and the Renaissance both replaced religion as state, by the state without religion. But, whereas Luther, while confining religious freedom to the personal life, left the state unhampered in its creation of an authoritarian order without freedom, the Renaissance belief in individual reason led to the liberal state, which degenerated into a system of liberty without order. Out of this

grew the totalitarian state of collective reason, in which liberty was seen as the future product of present order, a product which, however, remained—and still remains—obstinately in the future. Dr. Heimann rejects both the "socialist" explanation of Nazism as the final form of monopoly capitalism, and the "capitalist" explanation of it (as expounded by Hayek) as the logical fruit of German Socialism. But he rather unexpectedly regards the former as nearer the truth. His own theory is that Fascism in all its forms represents "the forcible reintegration of a disintegrated democratic society." But surely the view that socialist controls are the first step on the Road to Serfdom is at least consistent with the view that those controls spring from a fear of freedom as a solvent of social order.

Dr. Heimann's main attack is not directed against totalitarianism as such, because he regards it as the inevitable product of secular error—"there is a real and terrible solidarity of guilt." His chief antagonists are the rationalists (individual or collective), the libertarians and the Logical Positivists. Since "man is definitely not good and reasonable" (he is both good and bad), the freedom of the individual to be guided by untutored reason cannot harmonise liberty with order. The reconciliation must be sought in justice, which is an absolute. Justice "is a dogma, a commandment presupposed in our thinking and acting; in religious terminology, it has been revealed to us."

And so we are led to religion as the only source of social coherence. The plea is forceful, but it suffers from the pessimism of its premises. The world is "blurred and confused," man is sinful, reason is an imperfect instrument, love is too high for us, and we must therefore be content with justice, which is lower than love. The failures of humanity are laid bare, its weaknesses exposed, until hope must either be abandoned or sought outside. Religion is reached, as it were, by a process of elimination. We are never told in what the solution of religion will consist. We are asked to believe that the accumulation of evidence to show that man is helpless without religion is an accumulation of evidence proving that he can be saved by religion, and by religion alone. The negative is powerfully reasoned; the positive must be an act of faith.

T. H. MARSHALL

London School of Economics.

Cybernetics : Control and Communication in the Animal and the Machine. By NORBERT WIENER. (New York, Wiley, 1948. Pp. 194. $3·00.)

"IF the seventeenth and early eighteenth centuries are the age of clocks, and the later eighteenth and the nineteenth centuries constitute the age of steam-engines, the present time is the age of communication and control." Cybernetics (from the Greek for the problems of steering) is the theory of control and communication; while its primary applications are to the construction of servo-mechanisms and the study of the nervous system, the central concepts are highly suggestive for the social sciences. For this reason Dr. Wiener's book, although it barely mentions economics, deserves to rank with von Neumann and Morgenstern's *Theory of Games* and Noyes's *Economic Man* as an important methodological contribution.

Cybernetics, as a study organised around a problem rather than a specific discipline, has encountered all the obstacles to effective research inherent in extreme departmental specialisation of knowledge. A long introduction traces the history of the development of communication between students of communication, the realisation of the nature of the problem and the emergence of the main concepts and applications. This chapter is extremely interesting, both as an example of cybernetic problems in the sociology of knowledge, and as a convenient summary of the subject—all the more useful as the three chapters which contain the essence of the theory not only require mathematical competence beyond the capacity of most readers, including this reviewer, but show signs of sub-standard proof-reading (for example, the omission of two formulæ on p. 77).

Communication engineering differs from power engineering in that its interest is not economy of energy but accurate transmission of signals. The central concept of cybernetics is the message, "a discrete or continuous sequence of measurable events distributed in time"; it is a branch of statistical mechanics, because the message is a time series in which error is cumulative, and the transmission of a number of messages gives rise to a statistical distribution involving the problem of prediction. This has important philosophical implications (Chapter I), since cybernetics employs a biological or Bergsonian concept of time in place of the Newtonian (reversible) time.

Chapters II, III and IV outline the statistical theory of cybernetics, and should be of considerable interest to statisticians. Chapter II deals with the relevant sections of ergodic theory

(groups and transformations). Chapter III develops the central cybernetic theory of the amount of information conveyed—central because it provides a standard for the optimal designing (in either a mathematical or an engineering sense) not only of systems for communicating information, but of operators for predicting the future of a given time-series, and of compensators for separating information from "background noise." Chapter IV deals with the theory of "feedback." Feedback is another method of compensating for errors in the transmission of messages: "when we desire a motion to follow a given pattern, the difference between this pattern and the actually performed motion is used as a new input to cause the part regulated to move in such a way as to bring its motion closer to that given by the pattern." However, excessive feedback may give rise to oscillation.

The latter part of Chapter IV discusses voluntary, postural and homeostatic feedback in the human organism. Recognition of the importance of voluntary (proprioceptive) feedback constitutes a great advance in neurophysiological theory, and directly explains the pathology of ataxia. The next three chapters continue the biological application of cybernetics: there is a close analogy between the nervous system and the single run of a computing machine, not merely because the active-refractory operation of the neuron and the synaptic contacts parallel the series of binary choices employed in the most efficient computer, but because analogues of memory and learning can be built into the machine; the analogy suggests a fruitful non-materialist approach to the psychopathology of functional disorders of the brain.

The final chapter is sociological. Dr. Wiener distinguishes between the information available to the individual and to society; the latter, which determines the degree of social integration, depends on the extent of intercommunication, and tends to vary inversely with the size of the community. Dr. Wiener bewails "the extreme lack of efficient homeostatic processes" in the modern community, which he attributes to the fact that "the market is a game" and to private ownership of communication media (Knight and Innis respectively have analysed these problems more dispassionately). However, Dr. Wiener is sceptical of the prospects of improvement by cybernetics, since in the social sciences the statistical runs are too short and the observer too closely coupled to his material.

In view of the author's own scepticism about the applicability of cybernetics to the social sciences, the reader may well wonder

what use it has for economics. Certainly Dr. Wiener's arguments are strongly against the possibility of fruitful econometric application, though the statistical theory may nevertheless interest statisticians. The reviewer believes, however, that the notion of society as a communicating rather than an energy-conserving system, and the associated concepts of amount of information and feedback, are capable of throwing a great deal of light on a wide range of economic problems.

A few examples must suffice for illustration. In value theory, a considerable part of the existing analysis of stability conditions, dynamics, lags and expectations is ultimately concerned with the efficiency of economic communication; the cobweb theorem, unstable equilibrium and trade cycles all involve excessive feedback. Central banking control also seems amenable to treatment as a communications problem, particularly as regards bank-rate policy: that " delicate and beautiful instrument " owed its effectiveness as much to its signal effects as to its economic leverage, as is evident from the MacMillan Report. In economic history, the growth of economic organisation is in large part a function of the availability and communication of economic information—which recalls Adam Smith's theory of evolution in terms of the extension of the market. Finally, the concept of entrepreneurship as a feedback process provides a convenient bridge between Usher's Gestalt interpretation of entrepreneurial psychology and Schumpeter's theory of economic development.

HARRY G. JOHNSON

Jesus College,
Cambridge.

Rank Correlation Methods. By MAURICE G. KENDALL. (London: Charles Griffin, 1948. Pp. vi + 160. 18*s*.)

AT a recent jubilee meeting of statisticians the sentiment which evoked the applause of the evening was " the best things in life are not measurable by statistics " and one is, no doubt, being old-fashioned in hoping that they will remain so, though it has lately been noted, with some trepidation, that UNESCO is about to identify the Hundred Best Books. The essence of statistics is measurement, and at first sight there is something paradoxical in there being a branch of the science of statistics designed for application to entities which cannot be measured. The paradox is resolved in the fact that the method of ranks assigns numbers, admittedly arbitrary, to states which are essentially qualitative, for instance, the hierarchy " good,"

"fair," "poor" in numbers 3, 2, 1. From its earliest origins statistical science recognised qualitative distinctions: the class divisions in frequency distributions are not necessarily measures. More often than not, the 2×2 frequency table designed to establish significant relationship, *e.g.*, between treatments and results, is qualitative in character.

In its field of application, and to a certain extent in its adepts, the statistical theory of ranks stands apart from the main body of statistical science. It is accordingly useful to have a monograph on the subject which the author shows lends itself to tidy treatment, and to which he has himself notably contributed.

Two coefficients of rank correlation are discussed in this book, ρ, which is the familiar Spearman figure, and τ. The Spearman coefficient is the ordinary coefficient in which in a sample of n pairs of observations the ordinal numbers $1, 2 \ldots, n$ are assigned as measures. For the compilation of τ each of the $n(n-1)/2$ pairs of entities are considered, each same order being given a score of $+1$ and each diverse order a score of -1. The coefficient τ is the quotient of the sum of the scores divided by the maximum possible $n(n-1)/2$. The author briefly discusses the relative merits of the two coefficients, preferring τ to ρ and, in consequence, devoting more attention to τ. The reviewer ventures mildly to demur as to this preference, while agreeing that it is very useful to have a theory for τ. It would be interesting to investigate the relative efficiency (or sensitivity) of the two coefficients for determining real relationship between two characters in samples of given size. The reviewer's guess—he may be quite wrong—is that ρ is the more sensitive because it seems to take more account of the magnitude of the characters than does τ; furthermore, as the author shows, Spearman's coefficient in the large-sample normal case is a far better estimator of the population-correlation coefficient ρ' than is t the estimate of τ. If this were so, it would outweigh the disadvantages mentioned by the author of slower approach to normality in frequency distribution and greater difficulty in dealing with the problem of ties. Mathematically, ρ seems, in general, easier to deal with than τ; it gives a clearer concept of partial correlation and in general makes it possible to apply ordinary theory (multiple regression, analysis of variance, etc.) to problems of rank simply by regarding rank as an actual measure. The moments of ρ can be so readily computed that a close approximation of the actual frequency should be determinable for all sample sizes; as the author states, the exact probabilities for the case of no relationship are known exactly

for $n < 8$, and can be approximated by a Pearson Type VII distribution for $n > 8$.

In using the normal approximation for testing significance, the author indicates that, as a correction for continuity, unity should be added (for negative scores) or deducted (for positive scores) before dividing by the exact standard deviation. As a theoretical point of little practical importance unless the samples are very small, it may be observed that the Sheppard corrections should be applied to the " raw " variance, *i.e.*, $\frac{1}{3}$ should be deducted from the original variance in the case of τ.

The author discusses not only the significant departure from true zero values of the coefficient τ but also the possible deviations in random samples of given size when the universal value is not zero. The reviewer found it difficult to envisage applications in which this problem has practical importance. It seems to endow τ with an objective validity which it does not possess. The analogous problem of the classical correlation coefficient has the practical justification that approximate ascertainment of the true (or universal) coefficient is a means towards the end of determining the joint frequency distribution.

Is it correct to state (p. 109) that there is no parent value of the Spearman correlation ρ? Surely the procedure outlined on page 49 for estimating the value of τ from a sample of n from a parent population of N could equally be used to derive an estimate of ρ, and hence to define a population value of ρ.

In clarity of treatment, in nice balance between mathematics and application, in accuracy, the present work reaches Mr. Kendall's high standard of text-book writing.

R. C. GEARY

Dublin.

The American Democracy : A Commentary and an Interpretation. By HAROLD J. LASKI. (London : Allen and Unwin, 1949. Pp. x + 785. 25*s.*)

A FULL-DRESS book by Professor Laski on American Democracy is an event. There are few indeed in this country who can approach him in the extent of his knowledge of American affairs, and serious students cannot fail to benefit from the experience of reading these seven hundred pages of sustained writing on most aspects of American life. In an age of specialisms it was almost too much to hope that any professional writer would have the courage to present, even out of the fullness of a lifetime's study a complete picture of American study. Not since Bryce has an

Englishman attempted anything on this scale. Yet this is a function which foreigners have traditionally performed for Americans, who, understandably, have never developed a critical tradition which has enabled them to write about themselves. At a time when American technique has come to dominate in scholarship almost as much as in engineering we must be thankful that a foreigner like Professor Laski can still perform so central a function on the home ground.

It goes without saying that such an ambitious treatment must be uneven in quality, however erudite and panoramic the author's mind. It is therefore a tribute to Professor Laski that his commentary while attaining points of immense subtlety and penetration never falls below the level of great competence. In his own chosen field of politics he demonstrates his accustomed mastery; yet he has rightly chosen to limit severely the amount of space allotted to this not only because so much has been written elsewhere but also because the old-fashioned political approach to "the American problem" has ceased to yield results and needs urgently to be supplemented by that of sociology. The chapters on American culture, minority problems, the professions and Press, radio and cinema, for example, provide a much needed corrective to the classical political commentary. This being so one must not grumble if much of the comment on these more speculative topics is less original than one might have hoped, and is already the common coin of those who have studied and lived in America. In so far as the book is intended for the uninformed reader this is no criticism; but the general level of erudition makes exacting assumptions about the reader's knowledge, and one is left in some doubt as to the exact audience the author had in mind. The writing is versatile and flexible, and the complexities of American experience are handled with consummate skill; on the other hand, the style is often too allusive, and too often the argument is inferred, not stated. Finally, one cannot help regretting that the magnitude of the task, which from internal evidence appears to have demanded extensive use of dictation, has caused a deterioration in Professor Laski's normally effective prose.

If the argument is often too encrusted with illustrative matter to be immediately explicit, its general lines are not far to seek. What Professor Laski appears to be saying is first, that in America the ideal of equality for a time took its most advanced practical shape; second, that this ideal became identified with a particular form of society, *i.e.*, capitalist democracy, which by its very

nature makes the continued evolution of that ideal increasingly difficult; third, that therefore American democracy, having surmounted the crisis which gave it birth and the crisis over slavery now faces a third crisis. Only a radical change in the character of the state will make possible once again a condition of genuine equality (and therefore the free society) and will ensure that the " American principle of civilization " is not out of step with, and therefore a menace to, the world as a whole. That change is the introduction of the socialist State through the instrument of the Labour movement acting as a political party.

The argument is never stated so baldly. Indeed, Professor Laski is too sophisticated a student of America not to be aware of the many qualifications to be inserted before it might become tenable. Yet one cannot help feeling that some such thesis underlies the entire 700 pages of description and analysis. It would be difficult to deny that there is much in this as a working hypothesis. This has, indeed, led the author to many insights, particularly in reducing to more probable proportions against a broader American background the phenomenon of industrial capitalism between the Civil War and the Great Depression. It is well to be reminded, as American historians are also reminding us, that *laissez-faire* is not synonymous with " the American way." But when it comes to the forefront of the picture Professor Laski's own perspective appears to be as faulty as that of, say, Andrew Carnegie. It is almost as mistaken to identify the American society of to-day with the industrial capitalism of Henry Ford or of the Haymarket riot as it was a century ago to identify it with the institution of slavery. Professor Laski appears over-eager to believe that the Republic, like the *ancien régime*, is incapable of reform. He tends to minimise the success of the American reforming tradition which has consistently returned to the charge and which provided a solid basis for action between 1933 and 1939. At the same time he overdraws his picture of capitalism, harping back as he does to ogres like those of Wall Street who figure in an antediluvian, or at any rate pre-1929, folk-lore. His impatience for an evolution on the European pattern leads him to neglect the special problems of American statesmanship which derive from the essentially continental and federal nature of the State. Whatever the solution of America's internal problems, one can be certain that it will be an indigenous solution based upon an innate understanding of America's characteristic needs. To be impatient with American progress in this respect is natural for a European who depends so much on it, and for a socialist to whom the American worker

appears so bashful in his "historic role." But it is suprising in one so learned in the American tradition as the author of *The American Democracy.*

FRANK THISTLETHWAITE

St. John's College,
Cambridge.

The Concentration of Economic Power. By DAVID LYNCH. (New York: Columbia University Press (London: Geoffrey Cumberlege), 1946. Pp. 394. 30*s.*)

MR. LYNCH provides a guide book to the documents of the Temporary National Economic Committee which will aid many whose heart has quailed at that groaning shelf of volumes. He describes the atmosphere in which T.N.E.C. was set up, gives thumbnail sketches of its personnel and an outline of the hearings. He then analyses the reports both by subjects and by industries. All this provides a useful index to the documents. But his book is not merely that. It makes also a shrewd and lively commentary.

The total effect is somewhat depressing. It has long been a catch phrase in this country that merely letting in the light on monopoly would do a great deal of good. But in the U.S.A. there has been plenty of light. As Mr. Lynch points out, T.N.E.C. found very little that was new. Some fresh examples were unearthed, but all the categories of monopoly practice, from cunning legal evasion of the law to outright corruption and violence were already well known. The effect of publicity seems rather to induce a mood of dreary cynicism than an urge to reform.

The law has not merely failed, very largely, to defend consumers from exploitation by producers. It often actively assists exploitation. Most States now have "fair trade" laws which impose resale-price maintenance on all retailers in the State as soon as any one has signed an agreement with a manufacturer to retail his commodity at a given price. Not only States, but also the Federal Government, tax margarine to defend butter from a cheap substitute. Even laws which were genuinely designed to defend consumer interests—for instance, the compulsory pasteurisation of milk—are turned into a vehicle for monopoly. Consumer information services, purporting to give impartial advice to buyers, turn out to be advertising agencies in disguise. (Advertising was a topic which T.N.E.C. resolutely refused to discuss.)

The plentiful revelation of scandals was followed by vague and feeble recommendations for remedies. Mr. Lynch accounts for the atmosphere of frustration which this great inquiry produces

by its saturation in mythology. "The fetish is competition. It is a sort of emotional, cult-like, uncritical acceptance and repetition of the notion that competition is characteristic, feasible and desirable" (p. 92). Even great monopolists, such as the representatives of the steel industry, are never tired of affirming their faith in competition.

The whole issue of unemployment was side-tracked by attributing it to lack of competition, and Professor Hansen's views were dismissed as "un-American" (p. 348).

It was this attitude of mind which, in Mr. Lynch's view, prevented T.N.E.C. from facing the realities of a modern industrial system. "The question whether concentration is inevitable, beneficial and desirable from the standpoint of productive efficiency and the use of modern technology went quite unexplored" (p. 360). The discussion of economies of large-scale production was extremely sketchy, and even as a factual survey of the extent of concentration the report was disappointing. To suggest that a profit-seeking economy, by its very nature, promotes combination in the search for profit was blasphemy against the myth. In a dissent even from the mild recommendations of the Final Report, Representative Summers wrote "we seem to have forgotten that there is a living God whose laws control everywhere, guiding, directing and compelling human beings to be governed by them in their economic and political government, as distinguished from being governed by the theories of men." (Quoted, p. 352.) But if T.N.E.C. thought like ostriches, they worked like beavers, and their massive documents will long remain a rich quarry of material for research, and Mr. Lynch's book a handy guide to it.

JOAN ROBINSON

Cambridge.

Collective Bargaining: Principles and Cases. By JOHN T. DUNLOP. (Chicago: Richard D. Irwin, Inc., 1949. Pp. xvi + 433. $5.00.)

THIS book is one of a number of recent American publications which illustrate the subject of collective bargaining by the method of case study. The first part of the book surveys the issues and the procedure adopted in the conduct of collective bargaining. The second part contains a collection of seventy cases in which the issue in dispute and the contentions of the parties, but usually not the decision arrived at, are stated.

The cases, although illustrating the diversity of issues involved

and indeed the astonishing variety of matters on which management and organised labour appear to be able to disagree, are illustrative not so much of collective bargaining as of its failure. They appear, although the point is not entirely clear, all to be cases where the ordinary procedure of collective bargaining has failed to settle disputes and resort has had to be had to arbitration in one form or another. While, therefore, they illustrate the subject-matter of collective bargaining, they do not throw much light on the equally important topic of its procedure and methods, except so far as arbitration itself can be said to be part of the collective-bargaining process. They are, moreover, mostly cases of failure to agree over the interpretation of the provisions of existing agreements. The method of case study would no doubt be difficult to apply to the complicated issues involved in settling a new wages agreement. Nevertheless, as the author himself points out, it is the legislative function of collective bargaining in creating new agreements rather than the administrative and judicial function of interpreting existing agreements which, judged from the standpoint of resulting work stoppages, requires greatest public attention.

It is a common belief—and it would appear, at least in the U.S.A., to be one which is applied in practice—that the judicial function of interpreting existing agreements is more suitably entrusted to an arbitrator than is the legislative function of formulating new agreements. Nevertheless, as the author himself says, there are no "right" answers to many of the problems presented, even in the cases which involve merely interpretation, and that is perhaps why he has not, except in a few cases, quoted the decision which was, in fact, given. So far as one can judge from the arguments advanced by the parties in the cases cited, the practice of submitting questions of interpretation to the judicial process of arbitration tends to encourage a narrow legalistic approach to the whole course of collective bargaining.

We may well conclude that interpretation of collective agreements, in cases where there is genuine and strongly held difference of opinion, is no more and no less suitable for arbitration than is the process of formulating the collective agreement itself. So far as the promotion of harmonious industrial relations is concerned, the method is almost always more important than the matter of the settlement, and agreement is almost always preferable to arbitration. One obstacle to agreement between the parties which may account for the frequency with which resort has to be had in the U.S.A. to arbitration on questions of interpretation is the fact

that the party on the employer's side to a collective agreement is usually an individual company and not, as in this country, an employers' association. When, therefore, any question of interpretation arises, it has to be discussed by the trade union, not with a representative of all the employers in the industry, but with the individual directly involved in the case. Not only his direct financial interests but also his prestige may be involved in maintaining to the end a point of view which he has adopted in the earliest stages of the dispute, even though it is based on a narrow legalistic interpretation of a dubious text.

Whether the basis of collective bargaining is to be consent or compulsion is the fundamental problem of industrial relations in the U.S.A. The author points out that, judged by the experience of Western European countries, collective bargaining in the U.S.A. is young and that American employers have been as difficult to organise effectively for collective bargaining as were the workers for many years. He suggests that the future will see the formation of employers' associations and the extension of multiple-firm collective bargaining. Whether such developments would enable the U.S.A. to rid itself of the complications and discords involved in its legislative attempts over the past two decades to enforce the duty of collective bargaining is a matter which the author does not discuss. He does, however, point out that the existing legislation was shaped hardly at all by the labour and management representatives most familiar with the working of the system of collective bargaining. He suggests that even more important than the provisions of the law on the subject is that the law itself should represent a measure of agreement between management and labour.

Perhaps, however, when the day comes that American management and labour are able to agree on the text of a Labour–Management Relations Act, legislation will no longer be necessary to impose the duty of collective bargaining.

H. S. KIRKALDY

Queens' College,
Cambridge.

Greater Productivity through Labour-Management Cooperation. By ERNEST DALE. (New York : American Management Association, 1949. Pp. 197. $5.00.)

"CO-OPERATION" and even "productivity" have become words suspect of covering well-intentioned but largely subjective pep-talk. Mr. Ernest Dale's research report restores to these

words a welcome objectivity. He does not include under co-operation every relation between management and labour that may possibly make for increased productivity, and he takes incentive plans and trained and more intelligent foremanship as alternative, though often complementary, policies. Nor does he hesitate to report (for example, pp. 57, 81, 83, 100) reasons for preferring such alternative, authoritarian, methods in certain cases. The relations included under co-operation are (marginally) suggestions from single workers, and trade-union advice; and (mainly) the working of formal joint bodies in which both labour and management are represented.

Mr. Dale's conclusions are largely based on the answers to a questionnaire addressed to almost a thousand manufacturing companies believed to have some types of labour-management co-operation. 263 companies filled in the questionnaire, though apparently (p. 127) only about 200 even of these reported engaging in co-operation of some kind. The purposes for which co-operation was used most frequently were (in that order) accident prevention, elimination of waste and defective work, further labour understanding of policies, regulating attendance, insurance of workers, quality of control, job evaluation, control of physical working conditions, and regulation of lateness. All of these purposes were mentioned at least a hundred times in the answers, but as the author frankly admits (p. 23–4) the areas of co-operation are chiefly those in which " the possibility of conflict is small." Wages and hours of work are noticeable by their absence, though, while mentioned relatively infrequently, incentive systems and setting output standards are by no means barred from co-operative action.

Formal labour-management co-operation schemes limited in number and in purpose are also, Mr. Dale finds, limited in functioning by the requests both (curiously enough) of the management and the trade union. Each party insists that the other shall be " mature " and wishes to limit co-operation to information, advice or occasionally " constructive co-operation," and to exclude actual joint determination. The management feel they must have the final " say," and usually (p. 169) joint responsibility is too much of a burden for union representatives. They may ask for it, but actually be unwilling to take it because it may associate them with failure, or in the case of success, mark them as " collaborators."

Within these limits to the extent, purpose and activities of labour co-operation certain successes have been scored, which Mr. Dale recounts in Part II of his report, under job-evaluation, work

measurement, and "meeting" and "improving" standards of output. Co-operation helped to meet standards, for instance, by promoting greater understanding of policies among the workers and by reducing absenteeism. It improved standards by stimulating suggestions from workers. The annual suggestions on the Central Illinois Railroad were doubled, and the percentage of those adopted nearly doubled again, after a labour-management committee took over from pure management. But perhaps the most fundamental gain to productivity was in job-evaluation. Job-evaluation works out a "fair" wage structure such that each job is paid a rate differentiated to compensate for the different skill and effort involved. Though apparently new to the business world, evaluation is based on ideas far from new to economists. It is, in fact, a method of taking into account Alfred Marshall's "net advantages" and Adam Smith's "circumstances which make up for a small pecuniary gain in some employments and counterbalance a great one in others." Instead of following traditional and often obsolete distinctions between skilled and unskilled work, job-evaluation starts anew from such first principles as the job's agreeableness or dis-agreeableness, or the difficulty of learning it, and rates its wage accordingly. Experience such as that of the U.S. Steel Corporation (pp. 34–7) proves the value of the workers' co-operation. Indeed, equitable wage differentiation (however fatal to mobility) is an area where trade-union and employer ideology is identical, and the reduction of strikes about wages from 219 to 10 per year (p. 36), as the Corporation undertook co-operatively the "wage inequity elimination," is very significant.

Mr. Dale carefully weighs in his Part III various factors, such as personalities and the method of sharing gain, which must be considered before introducing co-operation, and in Part IV he gives careful advice on the detailed organisation of its introduction. He does not allow enthusiasm or practical precept to run away with him, however. He holds firm to the principle that *pace* Lord Beveridge (p. 165) "labour does not usually resist the temptation to exploit its bargaining strength" based on full employment, and that (p. 174) "formal cooperative plans should be started in the areas of greatest common interest." The American industrial climate does not appear in this report to be very different from the British, and the experience gathered by Mr. Dale of intimate local joint control should help in judging its results here on industrial peace and efficiency. These results may well prove more concrete than those of the remote joint control at

the top-level directing board advocated by guild socialism in the past, and by some trade-union leaders to-day. "Common interest" between labour and management will certainly be more difficult to find at the top where consumers, industrial and export markets must be thought of, and large-scale re-organisation and re-equipment, rather than the details of events with which labour spends his working life.

Mr. Dale's report is such a valuable reference book for and against a variety of policies advocated here and now, that one must regret the absence of an index. There is, however, a useful classified bibliography.

P. SARGANT FLORENCE

University of Birmingham.

An Economic Geography of Great Britain. By WILFRED SMITH. (London: Methuen & Co., 1949. Pp. xv + 747. 32*s.* 6*d.*)

"INTEGRATION" may be considered the educational world's slogan of the year, and economic geography, to judge from Mr. Wilfred Smith's work, is certainly an integrating discipline. If economists want to be in the swim and in their thought and teaching take into account geology, technology and industrial history, not to mention some statistical techniques, here is their textbook. Unlike so many students of geography, Mr. Smith writes well, does not swamp his reader in too detailed description, and follows a clear plan. Three chapters forming Part I give an historical summary, while the bulk of chapters in Part II take up the main branches of industry, including agriculture, mining and transport. A chapter on Foreign Trade and the British Economy is last, but, to the eye of an economist, certainly not least.

Clearly the author of such a comprehensive work must be a man with wide knowledge and power to distil it. Mr. Smith has already proved himself as an agricultural historian and statistician of his own Lancashire, and as an expert in industrial location on Merseyside; he is now shown to have read widely in the integrated topics, including location economics and industrial physiology (*e.g.*, for humidity) and to be able to seize upon significant indices.

Here, however, one criticism must be made. The indices he refers to so frequently, such as the tests of an industry's heaviness or immobility as factors in its location, or degree of localisation, are not comprehensively applied. We are given no list of industries with their indices to serve as a frame of reference. Baking, for instance (p. 559), is said to be a relatively mobile industry on all tests—weight of materials, value of product per ton and cost

of materials as percentage of gross output. Applying these tests to a large number of industries I have found bread-baking a slightly heavier than average industry. Out of fifty-five industries, ranked lightest first, it comes thirty-second in point of weight of materials per operative, twenty-seventh in point of cost of materials, forty-eighth in point of weight per given value of product. In spite of fragmentary, isolated, references we must be grateful to Mr. Smith for the use of statistically measurable tests at all. Let us hope that geographers and economists will soon get together to discuss the extension and the significance of such tests. My own view is that weight of material per operative, and weight and high cost of carriage per value of product is significant for mobility and location, but percentage of production cost spent on materials, so fatally easy to obtain from the Census of Production, is not. Mr. Smith shows (p. 399) that the percentage of total cost spent on materials for the motor industry rose considerably from 1924 to 1935, and he attributes this to greater mass production with its lower labour costs. But it might just as well be due to disintegration. When earlier processes are dropped, the material that is bought from outside is more highly processed and thus more costly. As Mr. Smith admits for some industries, for example motors (p. 400), but not for the majority, high percentage cost of materials does not necessarily imply that materials determine location. Among industries with the highest cost of materials are retailing and cotton spinning and weaving, but the former is dispersed, the latter localised away from materials.

Mr. Smith breaks new ground in comparing (p. 380) the number of workers in county boroughs with that in other areas, as a measure of the rural dispersion of industries; and he also shows enterprise in giving regional distributions of workers in the past, which enable us to summarise the historical trend towards or away from localisation. Clothing and shoemaking were clearly becoming more localised between 1850 and 1931. Based on Mr. Smith's distribution (pp. 503, 528) my coefficient of localisation rises for shoes (makers and repairers) from 0·05 to 0·37; for tailors from 0·06 to 0·20. In agricultural marketing, too, economists are given valuable though, again, isolated data. We are told (p. 234) that "within the range of (milk) collection for the London market . . . the greater part of Somerset in 1927 lay beyond the (normal) limit of collection." Could not Mr. Smith have given a map of the whole of the London "milk-shed," as Americans have done for New York and most of their large towns?

Providing useful summaries of the facts and the trend in facts,

Mr. Smith attempts to interpret them in a language that economists can understand. He looks to costs of production, costs of transport, costs of storage, factor costs. An admirable index will help economists to follow up his interpretation of the geography of a wealth of industries, far beyond the small sample a reviewer can quote.

P. SARGANT FLORENCE

University of Birmingham.

Unemployment Insurance in Great Britain—1911–1948. By SIR FRANK TILLYARD. (Leigh-on-Sea: The Thames Bank Publishing Company, 1949. Pp. ix + 233. 21*s.*)

THE unification of the social services under the legislation of 1946 which came into operation in July 1948 and the high level of employment which still prevails have tended to obscure some of the special problems of unemployment insurance which figured so prominently in the inter-war years and which may again prove of pressing importance. This book has a special value in recalling the strains imposed on such a system by heavy and long-continued unemployment. It weaves its way with commendable clarity through the confusing mass of legislation which marked the conflicting attempts to preserve the solvency of a contributory insurance fund and to pay benefit without test of means to persons unemployed for lengthy periods.

These problems were in some measure solved, even before the 1946 Act, by making Extended Benefit a charge on the Exchequer alone and by setting up the Unemployment Assistance Board, but much of the experience of the years before 1939 will still be relevant, perhaps as affording examples of what to avoid rather than what to emulate, if unemployment on any considerable scale should again emerge. A book such as this makes it easier to understand, for example, how the "genuinely seeking work" rule, introduced for a special and limited purpose at a time when there was work to seek, came to be applied generally as a substitute for relaxed contribution conditions and came near to making a mockery of the system at a time when employment was not available, however genuinely sought. It is easy to conclude from the history of this single rule that, if unemployment benefit cannot be or is not to be paid continuously and as of right whatever the duration of unemployment, its limitation is far better regulated by objective and automatic rules such as contribution conditions than by subjective and discretionary verbal tests.

A scheme, which in its origin in 1911 covered 2¼ million

workers and provided benefit of 7*s*. per week without supplementation for dependants, may seem to have been transformed out of all recognition when applied, as it now is, to some 20 million workers and providing benefit (for a man with a dependent wife and child) of 49*s*. 6*d*. per week. Nevertheless, as the author reminds us, despite all changes in scope and scale, there has been remarkable continuity in regard to many of the principles of the scheme and its administration. The tripartite source of finance, the system of not varying contributions or benefits in accordance with wages categories, many of the conditions and disqualifications for benefit, and much of the administrative and adjudicatory machinery which characterise the scheme to-day are directly derived from the 1911 Act.

The present book is essentially a legislative history of unemployment insurance. It does not attempt to deal in any detail with the social or economic consequences or the political background of the system. Its main value lies in showing exactly what happened in the field of legislation and administration rather than why. The author tells us that the book was written in 1941 and originally intended to be published at the end of the War. It was, however, delayed, first by publishing difficulties, and then to enable the author, with the aid of a collaborator, to incorporate chapters on the Beveridge Report and on the unemployment-insurance provisions of the new national insurance scheme. The book bears certain marks of its history, and it is questionable whether it would not have been preferable to adhere, despite delay, to the original intention and to have omitted any attempt to deal with the Beveridge Report and subsequent developments. The chapter on the Beveridge Report consists almost entirely of quotations from the Report itself, and the treatment of subsequent developments is exceedingly condensed. It is difficult, moreover, to see any good reason why ten pages should have been devoted to a tabular statement showing where in the Unemployment Insurance Act of 1935 can be found the corresponding provisions of earlier Unemployment Insurance Acts unless one assumes that the author had prepared the statement in 1941 and felt it a pity to waste the labour of so doing even though the 1935 Act is now no longer operative.

H. S. KIRKALDY

Queens' College,
Cambridge.

The Rural Market: A compilation of facts relative to the agricultural industry, rural standards of living and purchasing habits. Edited by J. W. HOBSON and H. HENRY, in collaboration with G. BROWNE. (London: Hulton Press, 1948. Pp. 132. 21*s*.)

THIS book does not altogether live up to its sub-title. The intention of surveying rural standards of living appears to have been dropped from the programme after the title-page was set up, and the book as it stands falls into two parts. One of these consists of the results of sample inquiries into the reading of newspapers and the purchasing of certain types of commodity by the rural population; and the other consists of " a simple outline of the British agricultural industry," offered " as a help to the townsman, and the businessman in seeing the facts and figures against their proper background."

This " simple outline " consists of a number of tables extracted, for the most part, from the *Monthly Digest of Statistics*, the *Agricultural Statistics* and the *National Farm Survey*. The principle of selection is not entirely clear, as the commentary is very superficial. The information contained in the county livestock and crop-acreage tables could have been much more satisfactorily presented in a series of maps. Mr. Hulton, realising no doubt that as a " compilation of facts about the agricultural industry " this part of the book is pretty weak, hastens to repudiate any claim to " completeness " for it, contenting himself with the assertion that the book is " the best collection of facts about the agricultural and rural community markets to be found in one place at this present time." If this is true, it is astonishing. The academic economist finds it difficult to understand why an agency like the Hulton Press has been content to produce a sketchy miscellany of readily available data rather than a systematic study of the purchasing-power of the rural community. At one point, it is true, a diffident attempt is made, by applying the results of the N.F.U. Farm Accounts Scheme to the official estimate of the gross value of agricultural output in 1945–46, to arrive at estimates of the wage-bill, total rent payments and similar aggregates for the industry in that year. The estimated wage-bill is of the same order as that given for 1947 in the 1948 National Income White Paper. " Repairs," it is stated, " run into many more millions." I cannot see how these aggregates can be of much help to anyone trying to sell anything, nor do they lead to a genuine statement of the " Social accounts of British Agriculture." What matters from the point of view of the salesman is, surely,

how many people have incomes in given ranges in given areas? The estimates of " annual requirements at saturation of machinery and implements in Great Britain, 1945 " given at p. 45 seem to rest on assumptions as to agricultural policy and organisation of a somewhat far-reaching and speculative kind.

The remainder of the book contains tables relating to the purchase of expendable stores and materials by farmers, and the purchase of newspapers and certain consumers' goods by the rural population. This part of the book contains much interesting information. The extent to which the markets in fertilisers and other materials appear to be dominated by a few firms is striking.

Assessment of the precise statistical significance of the results obtained by the sampling methods used in the inquiry is not easy. It seems certain, however, that the results of these inquiries represent an important addition to the existing, generally qualitative, information on the consuming habits, and by implication, on some of the habits of life, of the rural population. It is difficult to summarise the information given in this section of the book. The activities surveyed include newspaper-reading, smoking, drinking and the use of various cosmetics, as well as other matters of equal sociological interest.

E. J. BUCKATZSCH

Cambridge.

Farm Accounts. By F. SEWELL BRAY and C. V. DAWE. (Oxford University Press (Incorporated Accountants Research Committee), 1948. Pp. ix + 149. 15*s*.)

FARMERS have for long been notorious for their reluctance to keep accounts. For this reason, the agricultural economist who wishes to carry out a survey has been accustomed to collect his data direct from the farm—indeed, he has often found it necessary to teach the farmer book-keeping and prepare the accounts himself. Since 1939, however, more and more farmers have been brought within the scope of Schedule D, and professional accountants are now employed by farmers to a much greater extent than formerly. It is of interest, therefore, to review a book produced jointly by an agricultural economist, Mr. Dawe, and an accountant, Mr. Sewell Bray.

The book is divided into four chapters, of which the first three appear to have been contributed largely by Mr. Dawe. He has had long experience in the application of accounting to farming, and the first chapter describes the system used at Bristol University. To the agricultural economist, however, accounts are

not an end in themselves. His purpose is twofold : first, to study the economics of agriculture as an industry, and secondly, to use these data to measure the efficiency of the individual farmer. It is to the second of these aspects—the measurement of individual efficiency—that most attention has been given. For this purpose, the authors advocate (in the second chapter) the use of cost accounting. This is a subject to which much attention was given in the 1920s, and at that time it was the chief technique employed. It was found, however, that full cost accounting suffered from certain limitations when applied to agriculture. Unlike a factory, where each department may have its own staff and buildings, farming is a highly integrated process, and the allocation of costs presents many difficulties. Moreover, it imposes a considerable burden of clerical work on the farmer, and tends to be unpopular. For this reason, other techniques have been perfected—the survey method, the enterprise cost, the use of various input–output ratios and the like—which reduce the amount of recording necessary and, of even more importance, allow the economist to draw his sample from a wider field. Nevertheless, the authors have succeeded in reducing cost accounting to the simplest terms consistent with accuracy. This book may, therefore, help to revive interest in a technique which has been relatively neglected in recent years.

The third chapter, "The Agricultural Economist and The Farmer," starts with a brief historical sketch and then passes on to the interpretation of results to the farmer. This section is of considerable interest, but might have been still further improved by the inclusion of more examples.

The final chapter is entitled "The Professional Accountant and The Farmer." In it the suggestion is made that the farm profit-and-loss account should be presented in the same form as in company accounts, where, after determining the "operational" profit, adjustments are made for reserve funds and the like, to determine the sum that can prudently be distributed to shareholders. In a company these are matters of vital importance, for the payment of dividends is a one-way transaction. But on the farm this is seldom the case. The number of farming companies in this country is negligible, and it is surely undesirable to introduce refinements suitable to a company unless vitally necessary. Indeed, a farmer reading Chapter IV, and its expansion in Appendix III, will be perplexed by the formidable list of adjustments suggested. Yet in essence they amount to little more than this : "If your accounts show a profit, make some provision for

income tax and other contingencies (such as a rise in the cost of replacing equipment) before spending it." This is excellent advice, but it could with advantage have been expressed more simply.

The latter part of the chapter deals with an alternative method of valuing livestock (the so-called " herd basis ") recently introduced for taxation purposes. This is only one of the many problems in accountancy facing the farmer, and the space given to it is disproportionately large. In the first place, a lucid explanation of this subject is given in a pamphlet issued free of charge by the Inland Revenue authorities. In the second place, existing farmers had already made an irrevocable choice on this matter before this book was published. Even new farmers who still have this decision to make will find little in this book to explain the implications of their choice on tax liability—and that, after all, is the only point of interest to them.

These flaws, however, are mainly confined to one chapter of this book, and it would be unfair to overemphasise them or to end on a note of criticism. Agricultural economists, accountants and many of the larger farmers will undoubtedly welcome a fresh restatement of the case for cost accounting—the first to appear for over twenty years.

FORD G. STURROCK

Cambridge.

The Measurement of Colonial National Incomes : An Experiment. By PHYLLIS DEANE. (Cambridge University Press (National Institute of Economic and Social Research, Occasional Paper No. XII), 1948. Pp. x + 173. 12*s.* 6*d.*)

THIS book is " an interim report " on what is described by Mr. Austin Robinson in his valuable Foreword as an attempt " to discover by experiment the possibilities and limitations of the techniques in which we were interested." The techniques in which he and his colleagues, Mr. Meade and Mr. Stone, were interested when they approached the National Institute of Economic and Social Research to find a suitable research worker " who might attempt the task of measuring certain colonial incomes " were the now world-famous techniques which Mr. Meade and Mr. Stone themselves had devised for measuring the national income and its composition in the United Kingdom. " It was natural to ask," writes Mr. Robinson, " whether these, with the threefold approach through income, output and expenditure, were capable of *universal* application, not only to the national income of the

United Kingdom, but also to that of other countries both *advanced* and *primitive*." (My italics.)

Miss Deane became the experimenter. The experiment lasted nearly five years, mainly owing to the exigencies and difficulties of war-time. She was assisted by the Advisory Committee of the Institute, but hers was the constructive work. No reader of this book can fail to be immensely impressed with the exceptional skill and perseverance with which the experimenter has carried out the tasks assigned to her, and the lucidity and detail with which she has written up every aspect of the investigation itself. Indeed, her exposition of these techniques will in itself be found invaluable by all students of the subject. No author could be at greater pains to warn the reader of a tentative conclusion, or a suspected margin of error.

It is at first a little puzzling why these National Income calculations should have been regarded as an "experiment." It was not, of course, the first attempt to calculate the national incomes of under-developed societies, or the incomes of peoples mainly engaged in a subsistence economy. There have been other attempts—dating back to those of Professor R. A. Lehfeldt in South Africa, in 1918.

It is clear that, notwithstanding various valuable by-products from the study, the very *raison d'être* for it lay in the attempt to apply the very special techniques referred to above to the three territories of Northern Rhodesia, Nyasaland and Jamaica. This should be borne in mind, because I doubt whether Mr. Robinson's claim that the experiment "has shown that the threefold—income, output, expenditure—approach has even greater advantages for the measurement of colonial incomes than it has for more advanced countries" can possibly be substantiated.

My reaction to the investigation has been quite a different one. It has led me to ask why it should ever have been expected that a technique which suits a highly developed and large-scale national economy such as the United Kingdom should, even if it could, be applied to small so-called "national" units which are only just entering the world economy through the development of one or two specialised products in them. The whole procedure looks like an experiment to discover whether the system of accounting applicable to General Motors can throw light on the operations of a wayside petrol station run by a man whose main livelihood is obtained with the assistance of his wife and children from an agricultural allotment. Indeed, one has an uneasy feeling that the application of the term "*national* incomes" to the

aggregates calculated for these territories is as forced as the application of the technique itself.

There are many fundamental questions which this experiment does not attempt to answer. What exactly is the value of these National Income aggregates as a measure of the real satisfactions of colonial peoples who are in process of very rapid transition from one type of social organisation to another? Have these aggregates meaning as a measure of "welfare"? What is their usefulness for the colonial administrator or for the central authorities of self-governing under-developed societies? Are these aggregates a practical tool, or are they the symbols of fashionable concepts transferred from very highly developed economic regions to hide our ignorance of economically backward ones?

The investigation under review is intended only as a preliminary study. What is needed next is a new approach in order to discover relatively simple methods for measuring broad economic magnitudes at fairly frequent intervals—suited to the crudity of the statistical material available. In particular, due regard should be paid to the cost and time which the calculations will involve—bearing in mind that poverty-stricken peoples in backward regions have to pay for them eventually. This book is a valuable contribution to that further task, and it is to be hoped that the author will herself undertake it.

S. HERBERT FRANKEL

Nuffield College,
Oxford.

Die Auswirkungen der Industrialisierung von Agrarländern auf Industrie-Exportstaaten. By H. RUSSENBERGER. (St. Gallen: Fehr, 1949. Pp. 206. Sw. Fr. 12.00.)

THIS is an excellent book on a subject which is becoming increasingly prominent in economic discussion, in the U.S. at least, namely the effect of industrialisation of under-developed countries on the more industrialised countries. It seems a pity that the fact that this is written in German is bound to limit severely its Anglo-Saxon circulation. The subject-matter of the book is perhaps a little more limited than the title suggests, since it does not deal with the effect of industrialisation of under-developed countries on the food and raw materials supplies of industrialised countries, nor does it deal with foreign-investment problems, nor does it deal with the changing terms of trade between primary commodities and manufactured articles and their

effects. These limitations, however, are explicitly recognised in the book itself.

The thesis of the author can be defined as a compromise between the optimistic and pessimistic schools, a leaning towards the optimistic school modified by the doubts assailing this strongly liberal economist in view of present anti-liberal tendencies. In other words, he does not think that the industrialisation of under-developed countries carries any dangers for world trade in general or for the trade of the more industrialised countries in particular, provided a number of liberal pre-conditions are fulfilled. In particular, the economic policy of the industrialised countries must be flexible, and mobility of labour, capital and entrepreneurship in the industrialised countries must not be unduly diminished by internal rigidities or by State intervention; similarly, on the part of the under-developed countries themselves, industrialisation must be of a non-autarkic character governed throughout by economic costs considerations and absence of excessive State protection. If these general conditions are satisfied, industrialisation of backward countries will work out to everyone's benefit and result in strengthened international economic relations of a more satisfactory type than before.

It will be realised that with this general approach, the author is suspicious of over-ambitious industrialisation programmes based on the artificial building up of heavy industries. Apart from a few special cases, of which the U.S.S.R. was one, the author thinks that industrialisation should normally be concentrated, in its early stages, on processing of domestic food and materials and the building up of light industries, and that a number of under-developed countries will naturally be confined to this type of "partial industrialisation" as distinct from "full industrialisation."

The demonstration that industrialisation of under-developed countries and technical assistance rendered to them do not reduce the possibilities of beneficial international trade, and that there is little substance in the view that in this way comparative advantages would tend to disappear, is very wholesome. A Swiss economist is particularly well placed to stress the "cultural" factor in comparative advantages (as distinct from the "natural" factor) and the importance of "specialty trade" between the industrialised countries themselves.

The general method of approach is by theoretical argument, and only in one brief section are statistics used to demonstrate the shift in the composition of exports of industrialised countries over

a long period. A vàst bibliography is used and quoted, but the author always manages to marshall his quotations so that they contribute to his own argument, and one never feels that his wide reading has interfered with his own thought.

Two points in this book seem to the present reviewer to be worth underlining. The first one would be the demonstration that more recent industrial countries are at an advantage compared with old industrial countries, not so much by the fact that they employ more up-to-date techniques (this argument seems to the present reviewer largely fallacious), but by a different structure of production, by being more up to date in the *type* of commodities produced rather than in the *method* by which they are produced. The second point is a very important and timely reminder that while there is considerable need for adjustment in the industrialised countries to changes which have occurred during the last ten years in the rest of the world, the need for such adjustment may at present be concealed because of full employment and inflationary pressure in those countries. Any recession or even slackening of inflationary pressure may bring out the problems involved. The British textile industry is frequently used as a prize example of adjustment difficulties. Some of the author's comments in this regard are very shrewd, and it is to be hoped that the book may find some readers in Lancashire.

H. W. SINGER.

Lake Success,
U.S.A.

Britain's Colonies in World Trade. By F. V. MEYER. (London : Oxford University Press (Royal Institute of International Affairs), 1948. Pp. xvi and 273. 18*s*.)

THIS book reviews in considerable detail the principal measures of British intra-imperial trade policy as applied to the Colonies. Imperial preference and the quota regulation of textiles are the principal topics surveyed. The external trade of practically every colony is reviewed before and after the introduction of preferential and protectionist measures. The survey embodies the fruits of vast industry, as a very large volume of official sources (chiefly trade returns, annual reports and Colonial Office memoranda) had to be consulted and analysed. The discussion is largely factual, and the chief merit of the book is the systematic collection and presentation of widely scattered material often awkwardly presented in official sources.

There is a noteworthy discussion (Chapter 7) on the gains to

be expected from imperial preference, the conditions necessary for their realisation and the difficulties of assessing the gains actually realised. Dr. Meyer rightly points out that where preferred supply exceeds demand in the protected markets, the introduction of preference cannot result in a net gain to the suppliers of a homogeneous commodity unless price discrimination is possible. This should be obvious on reflection, but is strangely neglected in practice. When the commodity is not homogeneous the granting of preference may benefit the suppliers even if aggregate preferred supply exceeds demand in the protected markets, principally if in the unsheltered markets there exists a strong preference for the grades of the commodity supplied by the exporters who are preferentially treated.

Dr Meyer applies his general analysis to the condition of the colonial trade of the inter-war period. He concludes that with the important exceptions of the sugar and banana colonies (the West Indies, Mauritius and Fiji) the colonies did not benefit substantially (Nyasaland and Cyprus probably secured some gains) from the preferential system of which Great Britain and Canada bore most of the cost. Moreover, some of the Colonies, notably some of the West African territories, were almost certainly losers on balance, in that the cost of the preferences granted by them exceeded the gains they secured from the preferences accorded to them. Dr. Meyer rightly insists that the principal products of the colonies cannot be assisted by imperial preference, as production within the Empire exceeds consumption. He also advances several cogent reasons against this particular form of assistance even where it is practicable. The interests of various colonies might diverge widely over imperial preference, some benefiting appreciably and others losing considerably. It is perhaps regrettable that the discussion does not cover the operation of imperial preference under bulk purchasing. It is, however, a very valuable pioneer treatment of an important and complex problem.

A minor omission may be mentioned. Malaya might have been added to the list of beneficiaries as a producer of palm oil (as well as of pine-apples which are mentioned by the author) to which appreciable preferences were granted in the United Kingdom and Canada. The palm-oil producers were members of a tight cartel which had some powers of price discrimination and which enabled them to profit from the preference. This appears to have been overlooked by the author, who relies very largely on official sources and statistics from which little information can be

gained about the marketing organisation of individual industries; this limitation was probably unavoidable in view of the wide scope of the work, but it does affect the argument at times.

There is an illuminating account of the operation of the textile import quotas and the specific duties on textile and cheap footwear directed largely against Japanese imports. These measures are intelligible enough against the background of the distress of the Lancashire cotton industry in the thirties, but Dr. Meyer's review is a salutary reminder of the cost imposed on the colonies. The specific duties frequently represented 150–200% or even more of the values of the cheap textiles and footwear on which they were levied; the textile quotas were even more burdensome.

About one-fifth of the book deals with the regional trade of British Malaya (apart from the discussion of the effects on this area of the operation of imperial preference and of the textile quotas). Dr. Meyer advocates a regional trade policy for this area (as well as for the Caribbean), but although many of his ideas are suggestive, his proposals are perhaps not specific enough.

The level of discussion is generally high, though there are a few curious slips in the analysis. Thus, in reviewing the failure of the Stevenson rubber-restriction scheme the author argues that "it was broken largely through the diversion of the American demand to the N.E.I." (p. 189). This is a fallacy. The scheme collapsed because it was not comprehensive enough. Even if the entire supply from Malaya and Ceylon had been marketed in America the scheme would still have broken down, as the expansion of supplies from outside sources (chiefly the N.E.I.) would have caused the price to collapse. Again, Dr. Meyer mentions as directly harmful to British interests an agreement between the Netherlands Government and the Dutch vegetable-oil industry by which the latter was to purchase 60% of its requirements from the N.E.I. As, however, the N.E.I. output of vegetable oils and fats appreciably exceeded Dutch consumption, the net effect of this measure cannot be assessed without reference to outside markets. The same applies to Dr. Meyer's remarks on the effects of the introduction of preferential import duties in various colonies; at times the author contents himself with contrasting the proportions of imports from Empire and foreign sources respectively before and after the introduction of Empire preference without considering the repercussions in the unsheltered markets. In neglecting these the author disregards his own analysis and conclusions in the chapter on the gains from imperial preference.

Two somewhat confusing misprints should be mentioned.

The last line of Table 58 (p. 222) should read "total imports" not "total rubber imports"; and in the footnote on p. 190 "most" should read "more." These are only very minor blemishes. The book can be strongly commended as an important contribution to an unduly neglected field.

P. T. BAUER

Gonville and Caius College,
Cambridge.

North Atlantic Triangle—The Interplay of Canada, the United States and Great Britain. By JOHN BARTLET BREBNER. (Yale: University Press (London: Geoffrey Cumberlege), Relations of Canada and the United States Series, 1945. Pp. xxii + 385. 27*s.* 6*d.*)

THIS is the fifth, and most comprehensive, study by North American historians in substantially the same field. D. G. Creighton led the way with his *Commercial Empire of the St. Lawrence* 1760–1850 (1937). Then came G. S. Graham's *Sea Power and British North America* 1753–1820. (Behind these two, and I think inspiring them, were Professor Innis's definitive studies in the fur trade and the codfishing industry.) The third was A. L. Burt, also in the Canada–United States Relations Series, and entitled *The United States, Great Britain and British North America from the Revolution to the Establishment of Peace after the War of* 1812 (1940). This is the most detailed and objective study of them all, revealing an intimate knowledge of maritime international law and a complete mastery of the political documents, but it is not mainly economic in its emphasis. The fourth was R. L. Schuyler, *The Fall of the Old Colonial System: A Study in British Free Trade* 1770–1870 (1945). This book, too, is very fair, but it is hardly what its sub-title suggests. It is a study of the impact of Free Trade on the New Empire, and in particular on British North America and the British West Indies. It does not present the Free Trade movement from the British standpoint, nor does it take us to the East, where the other half of the picture is to be seen. Finally comes Professor Brebner with the *North Atlantic Triangle.* Writing with full knowledge of these other works, he presents a synthesis of the whole development from early times to the present day. It makes fascinating reading: it gives the spirit of the New World, it is rich in information and challenging statements, and it has all the verve of Dr. Creighton.

The triangle in question is not the old trade triangle—of fish–lumber–sugar, or of ribbons and Birmingham toys, slaves,

sugar and cotton: embracing Britain, North America, West Indies, the Mediterranean and West Africa; but a metaphorical triangle, in other words the interplay of Great Britain, British North America and the U.S.A. Professor Brebner is a Canadian writing in the U.S.A., and it is the privilege of Canadians to administer side-slaps to the Mother Country. We learnt nothing from the loss of the First Empire and merely blundered on; we continued to think in terms of pre-1776 Navigation Law, sent out stupid governors, betrayed the Indians in the peace treaties, encouraged the Canadian lumber trade and then let it down, we could not understand an "inland-colony," we had no use for democracy (on which we ourselves stumbled in 1867 !) and less for popular education—this from a Canadian whose nineteenth-century culture came from eighteenth-century Scotland! Our only accomplishment was to produce a Durham and an Elgin. Having gone free trade, we had no use for empire. We were full of little Englandism, as presented by a gentleman who is new to me—one Viscount Bury, author of *Exodus of the Western Nations*; and then finally we were restored to the imperial path by the French-Canadian Sir Wilfrid Laurier. Well, if this satisfies Mr. Brebner, it is all right by me.

It happens that I am fresh from the perusal of forty-seven years of Board of Trade Minutes, forty-seven great volumes, each with a supplementary bundle of documents; and the impression left on my mind is the exact opposite of that presented by Mr. Brebner. We learnt our lesson, set about rebuilding our new Empire on new lines, going as far as we could to avoid trouble with America, abstaining from taxation and studying the field with wonderful thoroughness—in B.N.A., Newfoundland and the West Indies, in South Africa and West Africa, in Mauritius, India, New Zealand and Australia, not forgetting Gibraltar and Malta. We did our utmost to encourage constitutional government in every land of white settlement: in Asia we tried to behave as trustees. We sent of our best to our new dominions, we built up a comprehensive system of liberal imperial economy, we inspired the labour movement of the new world and we had our reward. For when Free Trade, so necessary to nineteenth-century Britain, came along, the new Empire not only survived it, but flourished on it. When Mr. Brebner ventures into the internal history of England, I am afraid he crashes. "The same British statute, adroitly engineered in 1824 and 1825 by the master tailor and Benthamite, Francis Place, legalised trade unions and permitted the export of British machinery." It did not. There

were two trade-union statutes, one of which largely reversed the other and they dealt with combination only. 5 Geo. 4 (1824) c. 95 dealt with combinations of workmen—Place's Act, and an adjacent statute 5 Geo 4 (1824) c. 96, dealt with artificers going abroad. 6 & 7 Victoria (1843) c. 64 legalised the export of machinery; till then it was only permitted by Board of Trade licences. There are endless references to these in the Board of Trade Minutes, and the general policy was to permit freely the export of other than textile machinery, especially if to a British dominion.

Mr. Brebner so often allows himself the pleasure of rejoicing with the United States against the old country that I did expect him to restore the balance by rejoicing with Britain over steamships. I turned up Cunard in the index, to find only that Cunard of Halifax imported American anthracite! Not a word of the Cunard Steamship Line and of that wonderful triangle of maritime enterprise—Halifax, Glasgow, Liverpool, which in twenty years wrested the supremacy of the North Atlantic from Boston and New York and held it to 1949.

But if there is nothing of Cunard, there is much of a quite unimportant under-secretary William Knox, whom our author elevates into a sort of super-Dundas or super-Huskisson. Neither then nor now do under-secretaries have this role. Professor Brebner has a fiscal armoury which is quite beyond my range—"Good Smithian economic nationalism," p. 59—what *does* this mean? It is Knaplund the American and not Brebner the Canadian who understands the economy of the new empire.

In plain truth the book is a spirited study of Canadian-American relations with frequent references to Great Britain, some of which are inaccurate or misleading. Yet I enjoyed it, alike where I agreed and differed.

C. R. FAY

Cambridge.

England and Germany. Affinity and Contrast. By HERMANN LEVY. (Leigh-on-Sea: The Thames Bank Publishing Company, 1949. Pp. v + 167. 7*s.* 6*d.*)

THE writer of this short essay, who died in January 1949 while it was still in the press, left Germany in 1935 and settled in England, where he spent the remainder of his life. He is well known in this country as the author of a number of scholarly works, some of which he published under his own name, and some in collaboration with Sir Arnold Wilson.

Professor Levy had always taken a keen interest in the economic affairs of this country, and as long ago as 1909 wrote a book on Monopolies, Cartels and Trusts in Great Britain. He therefore had the advantage of possessing both a general background and a first-hand knowledge of England as well as of Germany. With this equipment, the appearance of a comparative study of the two countries from his pen raises legitimate expectations. It must be admitted, however, with regret, that these expectations have not been fulfilled.

Part I, misleadingly entitled "Anglo-German Relations," deals very perfunctorily, for the most part, with the development of industrial organisation in England and Germany. Part II, entitled "Why German Democracy failed" is of greater interest. Here Professor Levy does give a reasoned, if not highly original or profound, explanation of some of the principal factors which militated against the rise in Germany of that liberal-minded middle class which was so marked a product of the industrial revolution in England. He might, indeed, have quoted in support of part of his case the following observation to be found in a too-little known work by Thorstein Veblen (*Imperial Germany*, pp. 85–6): "Modern technology has come to the Germans ready-made without the cultural consequences which its gradual development and continued use has entailed among the people whose experience initiated it and determined the course of its development." So far as England is concerned Professor Levy is a convinced adherent of the thesis of Max Weber that the growth of the capitalist spirit here was closely bound up with the Protestantism and Puritanism of the British people, and he defends this view against recent criticisms. In contrast: "In Germany there was a middle class of an entirely different economic and social outlook. The capitalist spirit was lacking in this class, at least in any strong degree." In fact, it was in large measure "indifferent to or in opposition to capitalism."

In a very short concluding chapter he writes on "Shaping the Future." His own position is expressed in the following sentences: "However much the Germans might learn in the economic sphere from those principles of English liberalism which are accepted in this country by members of all parties, it would in our view be fatal if English theories of planning were allowed to reinforce the leaning towards the autocratic economic policy with which large sections of the German people have become familiar through the particular ideals (less than through the policy) of the Social-Democrats. Germany needs individualism and free development

of industry, agriculture and trade, limited by State interference and social reform only when enterprise creates nationally undesirable conditions or retards social progress or fosters the growth of monopolistic organisations."

Taken as a whole, this is a disappointing little book, but it should be noted that some portions of Part II will repay reading.

C. W. GUILLEBAUD

St. John's College,
Cambridge.

Theorie der allgemeinen Wirtschaftspolitik und Wirtschaftslenkung. By DR. THEODOR PÜTZ. (Vienna: Verlag für Geschichte und Politik. 1948. Pp. 318.)

THE world of economists, or at least of those who write on this particular aspect, seems to be divided into two camps—the planners and the anti-planners. Professor Pütz is a stalwart adherent of the former camp.

In the first part of this book he criticises the doctrine that the so-called liberal or free economy represents the ideal economic system. Under modern conditions the free play of market forces fails in his view to achieve what we are entitled to demand from a properly functioning economic system. Neither optimum social welfare, nor the equilibrium of the economy as a whole, nor justice in distribution, nor maximum productive efficiency, can be expected to result from the working of an unregulated economy. Throughout this part of his work the author makes extensive use of philosophical concepts, involving for the reader a considerable knowledge of and familiarity with the terminology of German philosophical thought. Behind all this we seem to detect a strong vein of Roman Catholic authoritarianism. The author does not quote from the famous papal encyclical *Rerum Novarum*, but much of his writing would appear to be in harmony with that pronouncement.

In the second part of the book Professor Pütz deals with the theory of economic planning and discusses its methods and some of its limitations. Much of this is ably written and expressed with persuasiveness and moderation. It also reveals an extensive knowledge of economic (principally German and Austrian) literature, with which relatively few people in this country are acquainted. Like so many other protagonists on both sides in this field, he is, however, inclined to lay over-much stress on the theoretical advantages of the system he favours,

and to pay too little heed to the drawbacks and dangers inherent in it.

C. W. GUILLEBAUD

St. John's College,
Cambridge.

Monnaie et Économie Dirigée. By ALBERT AFTALION. (Paris : Recueil Sirey, 1948. Pp. 414. 600 fr.)

IN this book Professor Albert Aftalion, who bears a name which is honoured by economists of all countries, discusses the experience of France with a controlled economy and controlled prices during and after the Second World War. He tells us that he began to write it during the unhappy years of the German occupation and completed it after some four years of liberation.

He insists that the outstanding characteristic of the French economy, and especially of the pricing system, was that it was what he calls a " hybrid economy," partially controlled and partially free. This was true even during the occupation, but still more later when controls were being relaxed, and there was an extraordinary mixture of different and frequently inconsistent principles in operation. " Freedom of price, for example, was introduced for certain products while maximum prices were in force for other similar products, without any account being taken of the effects of the law of substitution. Or again, freedom of producer prices but maximum prices for retail sales ; while in the intermediate stages there was sometimes freedom and sometimes price control. Freedom of price for one part of the output of a commodity and a controlled price for another part. Discriminating prices, one being lower up to a certain quota and for certain consumers, and the second higher for amounts in excess of the quota and for other consumers. Emergence of a third category of prices which were neither free nor controlled but were described as ' tolerated,' being about the legal maximum price but not so much above as to give rise to judicial proceedings. Freedom of prices and also of quantities that could be brought. Or freedom in respect of quantities together with control of prices. Or freedom of prices, together with instructions to the authorities to see that no excessive rise took place—the so-called ' supervised ' freedom."

The author attributes the highly unsatisfactory results which he portrays mainly to " the bad organisation of our controlled system, as a result of the weakness of the State and of the strength of the pressure interests which have withstood it."

Professor Aftalion's book, while containing a good deal that is of general interest, falls rather between two stools so far as the English economist is concerned. It is essentially a theoretical work, but the treatment on this side is on a quite elementary level, while on its realistic side it is only sparsely supported by facts and statistics. Apart from stressing the obvious administrative and other difficulties of operating a hybrid economy of the French type, he is chiefly concerned to emphasise the importance of anticipation—the psychological factor—in the formation of prices.

C. W. GUILLEBAUD

St. John's College,
Cambridge.

Men, Cities and Transportation—A Study in New England History. By EDWARD CHASE KIRKLAND. (Cambridge, Mass.: Harvard University Press (London: Geoffrey Cumberlege), 1948. Two Volumes. Pp. 528 and 475 with Appendix and Index. 70*s*.)

THIS monumental survey of the economic history of the New England States, as measured in terms of transport, covers the period 1820–1900. It is one of the many studies aided by the Social Science Research Council and bears further witness, if need there be thereof, of the great value of that Council's work in the social-science sphere.

Professor Kirkland chose his eight decades for the reason that they embraced the birth, the development and the virtual completion of the railway network of New England. In fact, he has done more, because his opening chapters deal attractively with the coastal marine services, such as the steam-paddler *Fulton* offered on Long Island Sound, and coach-roads and turnpikes as they existed prior to and at the beginning of the railway era. His description of road maintenance at that period is of interest, and he might have mentioned that similar principles were still in use one hundred years later in regard to the so-called dirt roads then so prevalent in the Middle West. In truth, he is correct when he claims that "it was the railroad that after 1830 tied New England to the nation."

The reader of this two-volume survey, which is admirably documented and attractively illustrated, will discover within its pages an extremely detailed history of New England's economic development in the nineteenth century, for transport must inevitably build up and direct the flow of trade and industry. He

will, similarly, because of the amount of detail, find it difficult to grasp the full import of those events on American life as a whole and, to anyone unfamiliar with New England and its various localities such as Marblehead, Nashua, Lowell, Framingham and Burlington (Vermont), much of the value of this historical research will be lost. To one knowledgeable of these places the various chapters will bring back vivid memories and induce an enjoyment and value from its study which will more than offset the disability of holding such heavy volumes.

The work as a whole will naturally be of major interest to the American research worker and student—to the European economist it will appeal primarily for its lucidity and as a work of reference. The author effectively stresses the enforced guidance of geographical conditions on the design and construction of the various methods of transport, and how the railways have determined the direction of trade flow to and from New England, and within its several States, notably the effect of the Albany–Troy gateway and the competitive route via New York City. The latter has been effectively strengthened in recent times by the construction of the Hell Gate Route.

The impact of the competition between Boston and New York for transit and international trade runs through nearly all chapters as a theme reflected in finance or competitive rates. The first volume concludes with the period around 1860–80, and amongst the most valuable chapters one may enumerate those entitled "Regulation : Technological Change" and "The Great Bore." The latter relates to the Hoosac Tunnel and the vast difference the east–west route it provided made to the economy of Boston and its hinterland : Hoosac was one of the first of the world's great railway tunnels to be electrified and, within the past few years, could claim to be the first to be completely dieselised.

The second volume carries the story onwards to 1900 and covers the period of "Monopoly in Northern New England" to be followed by the later period of consolidation, from which emerged the two great New England railroad systems of recent years—the New York, New Haven and Hartford and the Boston and Maine. This section of the work will appeal most to those whose researches or interests lie primarily in New England, as would a contemporary history of our Great Western to the economic historians of Wessex in Old England. But Professor Kirkland cannot leave for long the breezes which fan out along the Bay State's shore, and soon returns to a study of the deep-sea and coastal trades which occupies a large part of his second volume.

The section that is likely to be of the greatest analytical value is "The Railroad Commissions" and "Rates and Services."

The whole survey concludes with chapters on "The Safety Movement," "Men" and "Masters," with an intervening section dealing with "Corporate Structures and Government."

In a brief review it is impracticable to include quotations, for to prise them from their contexts would invalidate most, and to select any specific ones from a book of this length would be invidious. New England and the Social Science Research Council should be grateful to Professor Kirkland for the depth and painstaking character of his researches, his excellent documentation on each page and the full index he has incorporated. He has enriched the supply of data in the economic-history sphere of New England, and his book should be a great asset to libraries and future researchers, but one may be permitted to wonder whether such a wealth of detail does not bury the principles of the past and the lessons that may help the modern world to solve its economic and transport problems. One may also be tempted to hope that the author will in due course design a sequel to these volumes, for the history of Men, Cities and Transportation in New England since 1900 is of absorbing interest, and the Library of the Interstate Commerce Commission alone would supply untold wealth, including the effect of the financial interest of the great Trunk lines on the policies of the New England railroads.

The compilation of this noble book, which is almost devoid of misprints and is factual in presentation, has clearly been a labour of love, and that fact has contributed to its success. On minor points one may disagree, but historical facts are difficult to dispute.

C. E. R. SHERRINGTON

Railway Research Service,
London.

Maternity in Great Britain. A Survey of Social and Economic Aspects of Pregnancy and Childbirth undertaken by a Joint Committee of the Royal College of Obstetricians and Gynaecologists and the Population Investigation Committee. (London: Oxford University Press, 1948. Pp. xvi + 252. 12*s.* 6*d.*)

IN 1946 nearly fourteen thousand women who gave birth to children during the week beginning March 3rd, were interviewed by health visitors about the conditions under which their confinements took place. The results of this Survey provide a greater

volume of factual information about childbearing and its attendant problems than has hitherto been available. The Joint Committee had the helpful co-operation of 424 maternity and child-welfare authorities in Great Britain, and credit must be given both to the health visitors and to the mothers who collaborated in this important undertaking.

The inquiry started with ante-natal care, went on to the confinement of the mother, and followed through to post-natal supervision, the care and feeding of the child and the costs involved. Other pertinent matters were included in the study such as illegitimacy, expectant mothers in gainful occupations, overcrowding and domestic help for burdened mothers of families. The book provides a mass of authoritative statistics which should prove a useful guide to the Ministry of Health as the national health service develops, for, as the authors point out, the Ministry's own statistics are lamentably inadequate. They " over-estimate the number of mothers who use ante-natal clinics; moreover, they give no indication of the duration or quality of care received " (p. 201). In the thirty years since ante-natal clinics were launched there has been a rapid expansion from 120 clinics in 1918 to 1,931 in 1944, and a survey of the extent to which the services are used and of the results attained is overdue.

Though the authors have laid stress on the presentation of accurate statistics, the important human aspects of motherhood have not been neglected. Much attention is given to the relief of pain in childbirth, and the figures presented are illuminating.

" Analgesia is given to 20 per cent. of those delivered at home; 8 per cent. of those attended by midwives receive it as compared with 48 per cent. of those attended by doctors. Relief of pain is thus still largely reserved for those who can afford to engage a medical practitioner to deliver them. Even so the poorer mothers engaging doctors are relieved less frequently than the well-to-do. . . . It is surprising that only 52 per cent. of those delivered in hospital are given relief."

Some revealing statements about large families are made in the report. " Throughout this inquiry it is apparent that large families both restrict the use mothers are able to make of the maternity services and lower the standard of living of the whole family. As family size grows, there is a rapid increase in the proportion of over-crowded homes. Yet it is particularly the mothers living in these homes who are unable to leave their homes for a hospital confinement. Family ties also prevent mothers of large families from getting early and regular ante-natal supervision,

and from taking their children to infant welfare centres. The impoverishment associated with having many children is shown by the progressive economies in expenditure . . . which are made with each succeeding order of birth" (p. 208).

Many women of all classes come under supervision later in pregnancy than is desirable, and greater efforts should be made to publicise the ante-natal services. Many young women approach their first hour of labour with almost no knowledge of the physiological processes occurring in normal birth, or of the help they themselves can give during labour to facilitate the birth of their child. Greater emphasis should be placed on the educational side of ante-natal care, and women expecting their first baby should be encouraged to attend demonstration talks on diet and hygiene, the nature of labour and so on.

The aim of maternity services to-day is to make childbearing safe, and attention therefore tends to concentrate on abnormal confinements. There are, however, material and psychological needs common to every expectant mother which should be satisfied. Women interviewed complained that (both at home and in hospital) they were left alone for long periods during labour (sometimes babies were born in the labour-room in the absence of even a nurse); that (in hospital) they were visited by a succession of different doctors and nurses which shook their confidence and deprived them of any sympathetic personal relationship; that close proximity to other women in various stages of labour was distressing; that hospital visiting hours were unduly restricted; that in first pregnancies they were discharged without adequate instruction about caring for their baby. In general, the lay-out and organisation of hospitals came in for criticism.

The report, though full of interest, is somewhat repetitive, and it might well have been enlivened by the more frequent quotation of case histories. The Joint Committee are to be congratulated on an important piece of work well done, and also on their decision to institute a follow-up survey of maternal morbidity and the social and economic factors which affect infant health and development during the first two years of life. Such an inquiry should receive the warm support of the Ministry of Health and all local authorities.

LELLA SECOR FLORENCE

Birmingham.

The Changing Size of the Family in Canada. By ENID CHARLES. (Ottawa : Dominion Bureau of Statistics, 1948. Pp. xiv + 311. $1.00.)

THOUGH this first census monograph presents a multitude of figures, its design is refreshingly straightforward and its execution neat and streamlined. Variations in the size of family are compared with variations and differences in other characteristics of the family or members of the family, such as religion, mother-tongue, schooling of mother, occupation of father and residence in town or country. Canada with its diverse population but standard census returns forms a fine field laboratory, and in working up the returns for 1941 the importance of non-economic "cultural" variables are clearly brought out (p. 68) by the wide divergence in the average number of children ever born to married women aged 45–54. Such a woman, if her mother-tongue was French, religion Roman Catholic, schooling eight years or less, residence country (and she were born on a farm), would on the average have 8·33 children. But her children would number on average only 1·85 if her mother-tongue was English, religion Protestant, schooling thirteen years and over, and residence in the city (and she were not born on a farm). Within these extremes a change even in a single variable may make a considerable difference. The farm-born, poorly educated French-speaking Roman Catholic, averaging 8·33 children if she lives in the country, will only average 6·06 children if she is living in a city.

When economic characteristics are taken into consideration, further differences in fertility appear, but they are not as wide as perhaps expected. French-speaking, town-dwelling husbands of average schooling have an average of 5·52 children if poor (with less than $950 a year), 4·16 children if rich (with more than $2,950). The difference is still less *ceteris paribus* among the English-speaking : 2·88 children if poor, 2·24 if rich. But though these differences are not very large, they are extremely consistent.

Throughout her report, Dr. Charles is healthily critical of the tests used. She is not satisfied with income as an index of economic status, and suggests a social grouping of occupations by tests more objective than the intuition and common sense used for the eight groups first distinguished in the English census of 1901. The main objective character she would add to income level to test occupational status is educational level; and educational level is found more important than earnings in determining the family-size characteristic for occupation.

"A large part of the rural–urban differential" in family size, Dr. Charles points out (p. 194), "is associated with differences in cultural characteristics, in ways of getting a living, and in incomes, but rural families are still significantly larger than urban families when all these factors are taken into account." Accordingly, the last two chapters vigorously tackle "Urban and Rural Ecology" and "Social Characteristics of Cities and Towns." The latter chapter contains one of the first attempts to apply factor analysis to a sociological rather than a psychological problem. 151 Canadian cities and towns are compared in respect of nineteen different characteristics from size and density of their population through religious and economic structure and fertility rates to income and educational level. Low fertility is found to be most closely associated with a town's Protestantism, English speech and high proportion in trading, and next most closely with a high social status, including high earnings and educational level. In addition to these bourgeois "know-how" characteristics, a high proportion of wage-earning women in the community is also associated with a town's low fertility.

Not content with comparing whole towns, Dr. Charles compares the wards of a few of the larger cities. A series of maps brings out the important ecological fact that the central wards do not have (as arm-chair reasoning might suggest) less children per family than the outskirts. The factors of poverty and site must first be unscrambled, and it is then demonstrated that greater fertility is found in the suburbs only when comparing the same range of income.

The recent report of the Royal Commission on Population ends with a plea for research and continuous study on the grounds that the "population problem will always be changing with changes in family relations, in outlook and in social and economic influences." This book, with its stress on such variables, should prove a model for the research projected by the commissioners.

P. SARGANT FLORENCE

University of Birmingham.

Wandering Scholar. By M. J. BONN. (London: Cohen and West, 1949. 9″. Pp. 403. 18*s*.)

ALL who know Dr. Bonn, and that includes a very large proportion of the world's economists, will be entranced and delighted by his memoirs. For he has not only lived a more active and more interesting life than is given to most men; he

has preserved a singular detachment which allows him to see the events in which he has taken part without those colour filters which affect the vision of most of us in matters which concern us nearly.

Brought up in the city of Frankfurt, which still retained much of the independence of outlook which it had possessed before its annexation by Prussia, he there acquired early the vigorous liberalism of thought as well as of politics which he has maintained through life. He came from a family of bankers, but banking did not attract him. His father had died when he was a child. With a precocious sense of responsibility for his own choice of career, he went off, aged seventeen or eighteen, to Berlin to consult Bamberger, Richter and Schmoller. His youthful ambition was to become a statesman and an author. The immediate decision was the study of political economy. He started at Heidelberg, but drew little inspiration from Karl Knies. He migrated to Munich, and there found one who was to remain his master, Lujo Brentano, with his manner of the *grand seigneur* and his passionate interest in social reform. Brentano sent him, when he had finished his thesis, to Menger—the very antithesis of Brentano, but another teacher without whose influence his education would not have been complete.

After Vienna, there was a term at the feet of Max Weber and then a year in England, loosely attached to a very newly born London School of Economics, still domiciled in Adelphi Terrace. England was cold and bleak and an early visit to the industrial cities of the north was infinitely dispiriting. But he saw and met (this was 1896) many of the great figures of English Liberalism. His task was the study of medieval economic history. In a moment of inspiration he saw that his problems could be understood far better by looking at them in a country where medievalism still survived than by examining musty documents. Ireland was there to be the material of his study. And so he set off for Ireland, determined that Horace Plunkett should be his mentor. And so it was. For three years most of his time was devoted to Ireland, and for ten years his energies were devoted to the book which grew out of it.

Travel in Italy, marriage to an English woman, a long tour of British South Africa and German South West Africa filled the next years. He was by now *Privatdozent* at Munich, but his teaching duties "were neither very exacting nor very profitable." Those of us who live in these more constricted days, dominated by lecture-lists, supervision time-tables, university and college

meetings, cannot but envy Dr. Bonn that long, unhurried apprenticeship, and cannot but wonder also whether we would not ourselves be wiser men if we had only a little more time "to stand and stare."

When war broke out in 1914, he had been for some time principal of a newly established College of Commerce in Munich, and was on his way to act as visiting professor in California. He spent the first three years of war in the United States, and returned to Germany with Count Bernstoff, the German Ambassador, when America entered the war. From then onwards until the coming of the Nazis he was continually in the thick of all major economic crises in Germany. He saw the 1919 revolution in Munich. He was one of the German delegation to Versailles. He crossed swords with Stinnes on reparations. He was an intermediary through Philip Kerr, whom he had known before the War, with Lloyd George at Spa and again at Genoa. We see all these events, the troubles of Germany, the great inflation, the rise and temporary eclipse of Schacht, through Dr. Bonn's eyes. For the whole economic history of the Weimar Republic, this book is very much more than mere casual reminiscence.

From 1921, Dr. Bonn had been professor at the College of Commerce in Berlin, and in 1931 was elected Rector. When Nazism came, he sought to use such influence as he possessed to mitigate the hardships of his Jewish compatriots and colleagues. But it was evident that he was among those that the Nazis were most anxious to dispossess. He resigned the office of Rector and crossed into Austria. From many invitations he chose that of the London School of Economics and began a new life. But the old *wander-lust* has never been quite eradicated. America has shared him with England.

This is a book which all should read. There is not only the fascination of the passages which throw quite new lights on the major politico-economic issues of our time. There are sketches of Brentano, of Horace Plunkett, of Lloyd George in attack, of Rathenau, Brünning, Stresemann, Schacht, which once read will never be forgotten. There is one passage, and one alone, where I find it hard to credit Dr. Bonn:

> "I had been bilingual for years," he writes; "I spoke and wrote English as fluently as my native tongue. Yet I was always under a heavy handicap when I had to express my innermost thoughts in English. I had a style of my own when writing German. . . . I rarely ever again experienced the creative joy that is the reward of a writer who has succeeded

in saying what he meant to say in words that perfectly render his thoughts."

Few Englishmen of this generation can rival Dr. Bonn in the economical use of their own language. If creative joy can be stimulated by the appreciation of his readers, I am sure that Dr. Bonn should have full measure of it.

Austin Robinson

Sidney Sussex College,
Cambridge.

NOTES AND MEMORANDA

A Pioneer of National Income Estimates

THE name of T. A. (later Sir Timothy) Coghlan is probably known to a few outside Australia as that of the author of a monumental social history of Australia.[1] In Australia he is also remembered as the Government Statistician of New South Wales, who, during the years 1886–1905, with great industry and fine judgment, made New South Wales for a time the country with the best official statistics in the world and laid the foundation for the collection and presentation of official statistics for the whole Australian Commonwealth.[2] But it seems to be little known, outside the narrow circle of those who have worked on the national income of Australia,[3] that Coghlan was also a pioneer of national-income estimates. It would seem that his estimates were the first official estimates of national income anywhere; and he also seems to have been the first (if Gregory King be left in a class by himself) to have attempted parallel estimates of national income, output and expenditure on lines at least approaching modern techniques.[4]

[1] T. A. Coghlan, *Labour and Industry in Australia*, 4 vols., O.U.P., 1918.

[2] Coghlan was born in Sydney in 1856. He studied engineering and entered the New South Wales public service in 1873 as an engineer. It was by an accident that he turned to statistics when he was appointed, in 1886, to the newly created post of Government Statistician. The trial period of appointment grew into a twenty years' occupancy of the post, during which he greatly developed the statistical services of the Colony and made himself a statistician of the front rank. Among his special interests was demography, which figures largely in his numerous semi-official publications. His standing was recognised by his election as Honorary Fellow of the Royal Statistical Society in 1893. According to the author of the obituary notice in the *Journal of the Royal Statistical Society* (1926, p. 785), Coghlan's evidence in favour of graduation and differentiation of income taxation before the British Select Committee on Income Tax in 1905 had some influence on the Committee's recommendations. In 1905 Coghlan retired as Government Statistician to take up the post of New South Wales Agent-General in London, which he filled, with a few short interruptions, until his death in 1926.

[3] There are references to Coghlan's estimates in F. C. Benham, *The Prosperity of Australia* (P. S. King, 1930, pp. 26 f.) and in C. Clark and J. G. Crawford, *The National Income of Australia* (Sydney 1938, pp. 53–5). But the extensive bibliography of national income in Bowley's *Studies in the National Income* (p. 209) refers only to Coghlan's later estimates of 1897 and 1902 for Australia as a whole.

[4] These claims cannot be fully substantiated without reference to some early works in the literature of national-income estimates which are not accessible to the author of this Note. It would be of some interest to hear whether the claims can be challenged.

The estimates were made for, and published in, the official year-book of New South Wales which Coghlan initiated in 1887 and which appeared from then until 1901 over his name under the title *The Wealth and Progress of New South Wales.*[1] From 1890 onwards, Coghlan also reprinted these estimates, and later extended them to the other "Australasian" Colonies, in a serial publication, *The Seven Colonies of Australasia,*[2] the predecessor of the *Commonwealth Year Book.*

Coghlan, in all his published work, was extremely sparing with references to his sources and explanations of the methods by which he arrived at his estimates.[3] Fortunately, however, the working sheets for a number of his published volumes have been preserved.[4] These contain, in his own hand and in meticulous detail, every step in the calculations for most of his estimates and enable us to trace his sources and methods. In the main, Coghlan relied upon the major official collections of statistics such as censuses, but also on newspapers and journals and personally gathered information. Where other sources failed, he did not hesitate to make guesses—sometimes startlingly daring guesses—in the light of his own very sound judgment and intimate knowledge of the economy of New South Wales.

(i) *Income.* Coghlan's first estimates of the national income of New South Wales were for the years 1886, 1887 and 1889.[5] In the absence of any income-tax data (income tax was not introduced in New South Wales until 1897) he relied chiefly on census data and output estimates. He therefore presented his estimates divided up according to "sources of income." As he pointed out

[1] T. A. Coghlan, *The Wealth and Progress of New South Wales, 1886/7–1900/1,* series of 13 volumes, Government Printer, Sydney, 1887–1902; hereafter quoted as *W. & P.*

[2] T. A. Coghlan, *A Statistical Account of the Seven Colonies of Australasia, 1890–1901/2,* series of 9 volumes, Government Printer, Sydney, 1890–1902; two further volumes were published in 1904 under the title *A Statistical Account of Australia and New Zealand 1902/3* and *1903/4.*

[3] In the case of his official publications, his plea of defence would probably have been reasons of space and the conventional notion of his time that *official* figures required no further authority.

[4] Working sheets relating to the issues of *Wealth and Progress 1886/7, 1887/8, 1888/9, 1890/1, 1892, 1894* and *1900/1,* and a few relating to the issues of the *Seven Colonies* have been preserved. They have kindly been made available to the author by Mr. S. R. Carver, New South Wales Government Statistician, Sydney.

[5] *W. & P. 1886/7,* p. 420; *1887/8,* p. 552; *1889/90,* p. 705; *1893,* p. 697. The last of these estimates was published by Coghlan as an estimate for "the year 1892" (*W. & P. 1893,* p. 697). This, as far as it is now possible to ascertain, seems to have been an error; as the working sheets show, the estimate was based on the occupational structure of the 1891 Census and on official production data (*e.g.,* for mineral production) for 1891.

later, these early estimates were "more a matter of speculation than exact calculation." [1] For the years 1887 and 1889 he also published estimates of wage incomes for each industry group.[2]

The working sheets show how Coghlan gradually refined his methods for successive estimates. The first estimate for 1886 was crude indeed. Incomes from primary industry were derived from his own output estimates with some adjustments for costs (such as value of seed in the case of agriculture). Income from trade and commerce was obtained by adding 5% of the sum of exports and imports to the published net profits of banks and financial institutions; income from manufacturing by taking 70% of the sum of the aggregate value of machinery and a figure of £1,000 per factory to represent wages and profits; wage and professional incomes in other industries by assigning figures for average annual earnings (based on wage-rate data with allowance for idle days) to broad occupational groups whose sizes were obtained from revised census data of 1881. In the later estimates the latter procedure was greatly refined by applying separate figures of annual earnings to small sub-groups of wage- and salary-earners, including some primary and all manufacturing industries. Some industry groups ignored in the first estimates were added, and the estimates of profit incomes improved by using several (still crude) methods as checks upon each other.

The normal decennial census of 1891, coupled with a special Census of Industries held for the first time in the same year, enabled Coghlan to produce a considerably improved estimate for 1891 [3] which he considered "a fair approximation . . . to the amount and to the sources of incomes." [4] A new estimate on the same lines was made for 1894.[5] Table I reproduces these five estimates.

The estimates for 1891 and 1894 were also published in the nowadays more familiar form of income accounts by types of income. The introduction of income tax in 1897 enabled Coghlan for the first time to draw on income-tax returns for his estimates of national income.[6] The result was the estimate for 1898. This

[1] *W. & P. 1893*, p. 697.

[2] *W. & P. 1887/8*, p. 552, and *1889/90*, p. 705.

[3] *W. & P. 1893*, p. 697; see also note 5, p. 617.

[4] *ibid.*

[5] *W. & P. 1894*, p. 749.

[6] *W. & P. 1897/8*, p. 967. Coghlan explains that these estimates "are based upon the statistics of income subject to taxation supplied by the taxation department, and upon the direct statements of pastoralists, manufacturers, and other employers of labour" (*ibid.*). Unfortunately, the working sheets relating to these estimates do not seem to have survived.

Table I

National Income of New South Wales.

(£1,000.)

Sources of income.	1886.[2]	1887.	1889.	1891.	1894.
Pastoral industry	10,500		13,400	13,326	9,292
Dairy farming			1,400		5,118
Agriculture	3,750	17,850	5,650	5,209	
Forestry and fisheries	[1]			[5]	410
Mineral production	3,000		4,450	4,554	4,264
Manufacturing	5,750	5,776	5,700	9,840	7,940
House rents [10]	7,000	5,900	6,120	6,883	5,661
Professional	2,500	2,760	2,700	5,108 [7]	3,129 [8]
Civil servants and government employees	2,500	1,405	1,620 [4]		2,978 [9]
Other tradesmen and labourers	8,000	—	—	—	—
Other mechanical and labouring	—	8,409	—	—	—
Personal and household service	1,500	2,018 [3]	4,680	4,397	3,574
Food distribution	[1]				
Trade and commerce, n.e.i.	3,500	—	—	—	—
Commerce, trade, etc.	—	—	8,000	6,338	7,468
Trade and shipping	—	3,168	—	—	—
Other trade and earnings of capital	—	4,278	—	—	—
Shipping	2,500	—	1,800 [6]	3,931	3,184
Transport (by land)	—	—			
Construction	—	—	5,870	6,414	5,834
Female wage earnings	—	2,711	—	—	—
Miscellaneous pursuits	—	—	1,560	400	228
Total	50,500	54,275	62,950	66,400	59,080

[1] No allowance for this occupation in 1886 estimate.

[2] See comment page 617.

[3] This item, like all others for specific industries in the 1887 estimate, excludes female earnings.

[4] Includes earnings of State railway employees.

[5] Probably included in "miscellaneous pursuits."

[6] Excludes wages and profits of State railways.

[7] Excludes State railway and postal employees' earnings included under specific designations.

[8] Professional and municipal-service incomes.

[9] Earnings of all State employees, other than railway employees.

[10] In the estimates for 1886, 1887 and 1889 this item included rents of business properties outside the primary and secondary industries.

appeared only in the form of division by types of income.[11] Table II gives Coghlan's three estimates of income in this form. From 1899 onwards Coghlan published four successive estimates of the national income of Australia and New Zealand which contain totals for the national income of New South Wales.[12]

All Coghlan's income estimates were estimates of private income produced. He excluded Government property income (*e.g.*, the profits of the State railways and tramways) even though

[11] A slightly revised form of this estimate appeared in *W. & P. 1898/9*, p. 927.

[12] *Seven Colonies 1899/1900*, p. 736; *1901/2*, p. 764; *Australia and N.Z. 1902/3*, p. 322; *1903/4*, p. 530.

TABLE II

National Income of New South Wales.

(£1,000.)

<table>
<tr><th>Types of income.</th><th>1891.</th><th>1894.</th><th>1898.</th></tr>
<tr><td>Wage-earners</td><td>25,500</td><td>23,636</td><td>29,679</td></tr>
<tr><td>Persons working on own account</td><td>7,326</td><td>6,959</td><td rowspan="2">8,176</td></tr>
<tr><td>Professional</td><td rowspan="2">5,108</td><td rowspan="2">5,633</td></tr>
<tr><td>Civil servants</td><td>2,539</td></tr>
<tr><td>Employers with earnings of capital owned in New South Wales</td><td>18,533</td><td>14,181</td><td rowspan="2">19,505</td></tr>
<tr><td>House rents</td><td>6,883</td><td>5,661</td></tr>
<tr><td>Absentee incomes</td><td>3,050</td><td>3,010</td><td>4,527</td></tr>
<tr><td>Total</td><td>66,400</td><td>59,080</td><td>54,426</td></tr>
</table>

data for this were readily available, but generally included incomes accruing to foreign residents.[1] The incomes of banks and other financial institutions were not shown separately but "included with the industries from which they are primarily derived." Thus, in 1891, "the income derived from the pastoral industry is set down as £13,326,000, but a very large portion of this amount consists of the earnings of financial institutions, though, as might naturally be supposed, the exact amount so earned and the amount to be set down as belonging to the nominal owners cannot be determined with any pretension to accuracy."[2] The figures for rent of dwellings included imputed rents of owner-occupiers. Coghlan nowhere discussed the national-income concepts which he adopted. But on most points, the definitions underlying his estimates can be inferred. For instance, in deriving income estimates from output data, he made no allowance for depreciation, so that his estimates must be taken as estimates of *gross* national income or product.[3] Presumably, they represent national income at factor cost,[4] but included the (then very small) item of transfer payments.[5]

[1] In the estimates of Australian national income in the last two issues of *Seven Colonies*, however, the incomes of debenture holders in England are excluded on the interesting ground that "these are not in any colony subject to taxation" (*Seven Colonies, 1899/1900*, p. 736).

[2] *W. & P. 1893*, p. 698.

[3] As shown by the attempt in the working sheets to allow for "wear and tear" in accounting for the difference between income and consumption; cf. Table III. The 1898 estimate, however, being based on income-tax returns, may represent *net* national income.

[4] This would be the case even where the income estimates were derived from output data; for the latter were ostensibly based on values at the place of production.

[5] Even the small portion of public-debt interest which accrued to domestic residents did not represent a transfer payment, since the debt was preponderantly productive. The working sheets, however, show that incomes of "pensioners and annuitants" were included in the national income.

(ii) *Expenditure.* Coghlan's first estimate of the national expenditure of New South Wales was for the year 1888.[1] It was actually no more than an estimate of private consumption expenditure, presented under the quaint title "the Cost of Living." Coghlan added the explanation that "while the income amounted to 54 millions,[2] the expenditure amounted to 48·7 millions, the balance of 5·3 millions representing the savings of the people and the earnings of absentees." [3]

Coghlan displayed considerable ingenuity in constructing his consumption estimates from very scanty data. The working sheets show that he relied mainly on estimates of average daily or weekly consumption per head or per family, which may have been obtained by more or less formal budget inquiries or from mere personal impressions. But he also drew on a great variety of other data. A pleasing example is his method of estimating annual expenditure on amusements by calculating the gross takings of theatres, music halls, race courses and other places of entertainment on the basis of number of establishments, seating capacity, prices of tickets and number of performances per year.

New estimates of private consumption were later published for 1890, 1894, 1897 and 1900,[4] while somewhat peculiar partial revisions of the estimate for 1890 appeared as "estimates" for 1892 and 1893.[5] For two of the later years, Coghlan also attempted to bridge the gap between income and consumption by analysing the various forms of saving; but he had to content himself with the publication of estimates for a few of the compo-

[1] *W. & P. 1888/9*, p. 334.

[2] This does not appear to have been a separate estimate for 1888 but based on the 1887 estimate.

[3] *W. & P. 1889/90*, p. 380.

[4] *W. & P. 1890/1*, p. 743; *1894*, p. 308; *1897/8*, p. 1053; *1900/1*, p. 775.

[5] *W. & P. 1892* (p. 849) presented the 1890 estimate, with revised figures only for food and drink, fermented liquor and tobacco, as "an estimate for 1892." *W. & P. 1893* (p. 781) gave a "revised" estimate for 1892 which merely added £2 million to the total, allocating £1·4 million for "lodging" to the item "personal attendance and service" and £0·6 million to the item "art and amusement"; these additions, which were hardly based on any very scientific calculation, disappeared again from the 1894 estimate. The slim extra volume of the series which was published during the depression while the 1894 volume of *Wealth and Progress* was delayed (T. A. Coghlan, *A Statistical Survey of New South Wales 1893/4*, p. 235) gives yet another version of the original 1890 estimate, with new estimates only for food and drink, fermented liquors and rent, as an "estimate for 1893." These are not the only occasions where Coghlan resorted to rather high-handed procedure, though they probably enhanced rather than diminished the practical usefulness of his volumes to his contemporaries and do not, as such, detract from the scientific quality of those of his estimates which were specifically prepared.

nent items.[1] These have been added to his estimates of consumption in Table III. Neither his publications nor his surviving working sheets show evidence of any attempts at independent estimates of private investment. When income tax was introduced, Coghlan was careful to add " direct taxes not falling on trade " as a new item in the Cost of Living. From 1900 onwards Coghlan published corresponding estimates of consumption for the whole of " Australasia." [2] Table III gives his five independent estimates of the national expenditure of New South Wales.

(iii) *Output.* In one sense, Coghlan's estimates of national income " by sources of income " really represent what would nowadays be called estimates of national output; and, as has been pointed out, they were at least partially obtained by the output method. But Coghlan also presented separate estimates of " general production " which were, in effect, the " value added " by the primary and secondary industries.[3] These were probably among his most careful and reliable estimates, although even here he frequently found it necessary to publish later revised estimates for individual items as better data came to hand.

For some of the major-industry groups, *e.g.*, mineral production, official output estimates had been collected and published for many years back. Coghlan also had at his disposal crop returns for agriculture and had begun to obtain from manufacturing firms annual returns of value of output and raw materials. Coghlan's first published estimate of " total production " was for 1888, as part of a corresponding estimate for all the " Australasian " Colonies.[4] This was followed by new estimates for each subsequent year, and by two estimates, first published in 1894, for the two earlier census years, 1871 and 1881.[5] Table IV reproduces the estimates for the years 1888, 1890, 1891 and 1894.[6]

[1] *W. & P. 1894*, p. 751; *1898/9*, p. 928.

[2] *Seven Colonies 1901/2*, p. 367; *Australia and N.Z. 1902/3*, p. 536; *1903/4*, p. 901.

[3] Value of output *minus* cost of raw materials and fuel. In aggregating the value of output of the various industry groups, Coghlan, from 1894 onwards, made further deductions for " raw materials twice included " (*e.g.*, feeding-stuffs already included in agricultural output) (*W. & P. 1894*, p. 569). The figures for mineral production, however, seem to have been taken straight from the estimates of the Department of Mines without any deduction for the substantial value of fuel and other raw materials used.

[4] *Seven Colonies 1890*, pp. 137 f.

[5] *Seven Colonies 1894*, p. 269.

[6] The estimates for 1888, 1890 and 1891 are from *Seven Colonies* (*1890*, pp. 137 f.; *1892*, p. 196; *1894*, p. 269); that for 1894 from *Wealth and Progress* (*1894*, p. 569). The estimate which is here presented as an estimate for 1891 was, like the corresponding national income estimate, published as an estimate for 1892; cf. note 5, p. 617.

TABLE III

National Expenditure of New South Wales.

(£1,000.)

	1888.	1890.	1894.	1897.	1898.	1900.
Consumption :						
Food and beverages	15,750	15,873	16,239	18,654	—	18,347
Fermented liquors	4,680	4,774	3,931	4,086	—	4,769
Tobacco	780	1,194	1,208	1,039	—	1,259
Clothing and drapery	7,470	8,392	6,567	7,158	—	8,231
Furniture	900	806	477	716	—	680
Rent (dwellings)	6,000	6,727	5,661	5,761	—	5,511
Locomotion	1,640	1,706	1,600	1,776	—	2,053
Fuel and light	1,780	1,797	1,853	1,960	—	1,760
Domestic service [1]	1,990	1,918	} 1,450	} 2,428	—	} 2,371
Lodgings	—	—			—	
Medical and nursing	920	1,428	1,432	1,519	—	1,512
Religion, charities and private education	860	716	754	944	—	1,213
Art and amusement	1,050	996	998	1,111	—	1,290
Books and newspapers	600	765	758	804	—	765
Direct taxes not falling on trade	—	—	—	734	—	519
State services, postage, succession dues	730	743	579	288[2]	—	398[2]
Other household expenses	1,550	2,815	1,950	2,013	—	1,866
Miscellaneous expenses	2,000	1,482	1,199	1,272	—	1,275
Total	48,700	52,132	46,656	52,263	52,563	53,819
Savings, etc. :						
Local rates	—	—	506	—	793	—
Losses by fire [3]	—	—	—	—	(400)[3]	—
Calls by banks	—	—	750	—	—	—
Conditional purchase (of land from the Crown)	—	—	1,052	—	1,105	—
Life insurance premia	—	—	910	—	910	—
"Savings" (at least)	—	—	3,300	—	4,000	—
Absentee incomes	—	—	3,010	—	5,505[4]	—
Wear and tear [3]	—	—	—	—	—	—
(Balance)	—	—	(2,896)	—	(250)[5]	—
National (private gross) income	—	—	59,080	—	64,426	—

[1] Includes other forms of "personal attendance."

[2] "Not incidental to earning incomes"; postage and telegrams only.

[3] Not published; taken from working sheets.

[4] The difference between this figure and the corresponding figure in Table II is due to the fact that the figure in Table II related to 1897, the 1898 estimate not having been available when the estimate of national income for 1898 was prepared.

[5] Clearly, this balance is too small to allow for depreciation and suggests that the figure of £4 million for (net) "Savings" was an overestimate.

Each of these estimates is reproduced here as it was first published. Almost every component estimate was later revised. Thus, the three earlier estimates of pastoral production were later brought into line with the 1894 estimate, which was the first to be based on a more careful attempt to value output at the place of production; the 1888 figure for agricultural production relates

TABLE IV

Value of Production of New South Wales.

(£1,000.)

	1888.	1890.	1891.	1894.
Agriculture	4,150	4,131	3,584	3,396
Pastoral industry	13,059	13,360	14,725	11,168
Dairy farming		2,888	2,736	2,548
Forestry and fisheries	786	1,343	1,502	689
Mining	3,800	5,004	6,396	4,858
Manufacturing	5,770	(7,615)[1]	7,798	7,627
	—	—	—	30,286
Less: Raw materials twice included	—	—	—	185
Total primary production	—	26,726	—	—
"Value of production"	27,564	(34,341)[1]	36,741	30,101

[1] Not included in original estimate; estimate for manufacturing from *W. & P 1893*, p. 472.

to the crop year 1887–8, the other three to the crop years ending in March of the following year; the mining estimates were later revised upward chiefly to allow for previously unrecorded production of iron; the estimates for dairy farming and manufactures were frequently adapted to changed classifications of subdivisions of the industries (undertaken largely in order to secure some uniformity with the official statistics of the other Australian Colonies); and so forth. The apparent violent fluctuations in the output of forestry and fisheries must also be ascribed to revision of estimates which had to be made on exceedingly scanty data.

Coghlan was aware that the "value added" by the various industries exceeded their contribution to the net national product,[2] and he appears to have made an attempt to ascertain the true income produced by the manufacturing industries but found the results too unsatisfactory for publication.[3]

The deficiency of his production data precluded Coghlan from presenting his income, output and expenditure estimates in the

[2] He explained (*Seven Colonies 1901/2*, p. 689) that, after deducting wages from the value added in the process of manufacture, "rent, insurance, depreciation, etc." still had to be allowed for before one could state "the profits on the business." A more detailed list of the items composing the difference between value added and income produced was given by Coghlan's successor in the first issue of the *Official Yearbook of New South Wales 1904/5*, p. 238: "A considerable margin must be allowed for such items as renewal of, and depreciation in, plant and machinery, etc., insurance, rent (when the buildings are not owned by the manufacturers), advertising, rates, taxes other than duty or income tax."

[3] *W. & P. 1893*, p. 473.

modern form, as parallel and alternative statements of the same magnitude. Neither could it be claimed that he fully appreciated the value of this procedure as a means of checking the reliability of each set of accounts. In other respects, however, Coghlan made bold use of his statistical data to reveal economically significant trends and relationships. Thus he calculated, and speculated on the significance of, the ratios of national income to (primary and secondary) "production" in each of the "Australasian" Colonies; [1] the ratio of national (private) income to national (private) capital; [2] national income per head of working population; [3] the distribution of income between different income groups; [4] trends of real income (value of output at constant prices); [5] and international comparisons for several of these relationships.[6]

H. W. ARNDT

University of Sydney.

FORMALISATION OF MR. HARROD'S MODEL

IN an earlier paper [7] I contended that Mr. Harrod's model was formally incomplete, if we confined ourselves to the premises explicitly stated. This note is intended to suggest ways in which the implied assumptions on entrepreneurial expectations can be made explicit, and a complete model constructed with their aid.

Mr. Harrod's explicit assumptions are that *ex post* saving (investment), $S(t)$ in period t, is a constant proportion, s, of income in period $t-1$, $Y(t-1)$, *i.e.*, that

$$(1) \qquad S(t) = sY(t-1),$$

[1] *Seven Colonies 1901/2*, p. 766.

[2] *Australia and N.Z. 1902/3*, pp. 323 f. Besides his estimates of national income, Coghlan published annual estimates of the national (private and public) capital of New South Wales from 1887 until 1893 and again for 1898 and 1900 (*W. & P. 1886/7–1900/1*).

[3] *Australia and N.Z. 1902/3*, p. 325.

[4] *ibid.*, p. 322.

[5] *W. & P. 1900/1*, p. 751, and earlier volumes. The 1894 volume, for instance, gives the following table (p. 570):

Total Production of N.S.W.

	At 1871 prices. £	At 1894 prices. £
1871	15,379,000	8,314,730
1888	29,415,800	14,994,110
1891	56,914,500	28,658,000
1894	59,044,900	30,100,660

[6] *e.g.*, *W. & P. 1900/1*, pp. 774, 776.

[7] "Notes on Some Dynamic Models," ECONOMIC JOURNAL, December 1948.

and that desired investment may (as a first approximation) be taken to be based entirely on the acceleration principle, *i.e.*, that desired investment in period t, $I(t)$, is a constant proportion, C, of the rise in income in period t above that in the preceding period, so that,

$$(2) \qquad I(t) = C[Y(t) - Y(t-1)].$$

If we are to have investment demand satisfied, *i.e.*, $I(t) = S(t)$, then income must behave in a special manner given by (1) and (2)

i.e., $$sY(t-1) = C[Y(t) - Y(t-1)] \quad \text{or}$$

$$(3) \qquad Y_W(t) = \frac{C+s}{C} Y(t-1),$$

where we say that this is warranted income,[1] as distinct from actual income, $Y(t)$ (modifying Mr. Harrod's terminology somewhat).

So far we have only enough information to tell us what (in a sense) ought to happen, but not enough to tell us what does, in fact, happen. We do, however, have some information about Mr. Harrod's views about this from the following arguments :

(*a*) The warranted income path is self-preserving (so long as full employment is not reached) because once on it, entrepreneurs will see that they are just satisfying investment demands with their outputs and so will continue, as before, increasing output at the warranted rate.

(*b*) The warranted income path is unstable, for, *e.g.*, if income

[1] I employ equation (1), rather than $S(t) = sY(t)$ as I did in my note referred to above, because this, together with (2), give for the warranted income $Y_W(t) = \frac{C}{C-s} Y(t-1)$ as the reader may easily verify, and this has the peculiarity that for $s > C > 0$ a warranted income must not grow at a constant geometric rate as an intuitive examination would lead us to expect, but rather national income must oscillate from period to period, and must be negative every other period if investment demand is to be satisfied ! Another alternative, suggested to me by Professor Popper, is that we take saving to depend on income anticipated in the next period, *i.e.*, $S(t) = sY(t+1)$, which with (2) gives for warranted income $Y_W(t) = \frac{C}{s} Y(t-1) - \frac{C}{s} Y(t-2)$, a second-order linear equation. This can have no oscillations like those of the preceding case provided s and C are both positive, which seems reasonable on economic grounds. For $C \geq 4s$ this gives an explosive time path for warranted income as Mr. Harrod's analysis suggests, but for $C < 4s$ warranted income behaves cyclically.

The difficulty of oscillation in warranted income disappears as well if we employ Domar's differential equation approach, taking $I(t) = C\frac{dY}{dt}$ and $S(t) = sY$, which gives $Y_W(t) = Ke^{\frac{s}{c}t}$, but the assumption here is that investment demand is based only on the experience of what we might call (in mathematically bad taste) an infinitesimally small period of time.

increases more rapidly than warranted there will be excess investment demand, entrepreneurs will try to increase their outputs so much in the next period as to make up for this deficiency, and this will cause output to increase still further above the warranted amount.

Argument (*b*) may seem to suggest that entrepreneurs change their outputs just by the amount they think necessary to make up for the excess demand, $I(t-1) - S(t-1)$, (positive or negative) in the preceding period, so that in period t they produce

$$(4) \qquad \begin{aligned} Y(t) &= Y(t-1) + I(t-1) - S(t-1) \\ &= (1 + C)Y(t-1) - (s + C)Y(t-2). \end{aligned}$$

As we shall see presently, this does not really suit Mr. Harrod's specifications, but we might note a few of the properties of the system. It involves a second-order-difference equation with characteristic equation

$$X^2 - (1 + C)X + (s + C) = 0;$$

if on economic grounds we take $s > 0$, $C > 0$, it has no negative roots. If $s + C > 1$, which seems economically plausible though not without exception, then at least one of the roots must be greater than unity in absolute value so that the system will be explosive. Finally, if

$$(1 + C)^2 - 4(s + C)$$

is negative, *i.e.*, if

$$1 - 2\sqrt{s} < C < 1 + 2\sqrt{s},$$

(on economic grounds I assume $s < 1$ throughout)

then the roots will be complex, which means that the dynamic system will involve cycles of growing amplitude. This can happen independently of ceilings and floors such as those provided by the natural rate of growth or those suggested by Hicks,[1] and against which the system is taken to bounce up and down. If, however, we have

$$C > 1 + 2\sqrt{s}$$

the system will explode either upwards or downwards depending on the initial impulse.

The reason this system cannot really be what Mr. Harrod had in mind is that it does not satisfy condition (*a*), *i.e.*, the warranted rate, once attained will not be adhered to. For presumably the warranted rate of growth is positive, *i.e.*, $s > 0$

[1] J. R. Hicks, "Mr. Harrod's Dynamic Theory," *Economica*, May 1949.

and $C > 0$ in (3), but once the warranted rate of growth is attained, by definition

$$I(t) = S(t) \text{ so that (4) gives}$$
$$Y(t+1) = Y(t)$$

which means a departure from the (positive) warranted rate of growth of income.

I suggest that a system closer to that which Mr. Harrod had in mind can be obtained by assuming that entrepreneurs plan (because of past experience?) to increase their output at warranted rate unless there is (positive or negative) excess demand $I(t) - S(t)$, in which case they plan to depart from the warranted rate by an amount sufficiently great to make up for the excess demand. This gives (compare (3) and (4))

$$Y(t) = \frac{C+s}{C} Y(t-1) + I(t) - 1) - S(t-1),$$

or, substituting from (1) and (2)

$$(5) \quad Y(t) = \frac{C^2 + C + s}{C} Y(t-1) - (C+s)Y(t-2).$$

The time path of income given by this equation can easily be shown to have properties much like those suggested by Mr. Harrod's analysis. The characteristic equation has no negative roots if C and s are both positive. If $C + s$ exceeds unity, at least one of the roots must be greater than unity in absolute value. Moreover, there are no complex roots.[1]

All this means that income must follow a path which is explosive upwards or downwards depending on the direction of the initial impulse. It is also easily seen that if (5) holds, the warranted rate of growth, once attained, is self-perpetuating.

To see what happens when there is a departure from warranted income, $Yw(t)$, write for " the gap "

$$(6) \quad D(t) = Y(t) - Y_w(t) = I(t-1) - S(t-1), \text{ (by 5)},$$

[1] For complex roots require

$$\left[\frac{C^2 + C + s}{C}\right]^2 < 4[C+s]$$

or $Z = C^4 - 2C^3 + [1 - 2s]C^2 + 2Cs + s^2 < 0$, which has a minimum with respect to s at $\frac{\partial Z}{\partial s} = 2[C - C^2] + 2s = 0$

or $$S = C^2 - C,$$

which substituted into the equation for Z gives $Z = 0$. Moreover, $\frac{\partial^2 Z}{\partial S^2} = 2$, so that there is no value of $Z < 0$.

so that by (1) and (2) we have, in the next period

$$D(t+1) = I(t) - S(t) =$$
$$C[Y_W(t) + D(t) - Y(t-1)] - sY(t-1) = CD(t),$$

by (1), (2), (6) and (3) which means that the departure from the warranted income will grow ever larger if, and only if, $C > 1$ and will tend to disappear in the long run if $C < 1$.

From all this it would appear that an assumption something like that given by (5) is what is required to make Mr. Harrod's system work the way he says it does. At any rate this attempt to bring out the underlying assumptions in explicit form may help in evaluating the empirical validity of the system.

WILLIAM J. BAUMOL

OFFICIAL PAPERS

FIVE ECONOMIC SURVEYS [1]

THERE was a time, not very many years ago, when an economist could legitimately feel that, while in the fields both of theory and of applied economics great progress was being made in matters of detail, there was insufficient study of the trends of the world economy as a whole, as well as of that of particular nations. Before the war this gap was already beginning to be filled. In particular, the brilliantly edited annual world surveys produced by the League of Nations enabled one to see the developments of one's own country in their world setting. Since the end of the war there has been such a proliferation of surveys, national, regional and world-wide, that one has begun to ask which among them are the "must's," and which can decently be left for reference rather than reading.

Here are five surveys. Two are concerned with world problems. Three are concerned with regional problems. Each in a separate way adds to our knowledge. There are various

[1] *World Economic Report, 1948.* United Nations Department of Economic Affairs, Lake Success, New York. H.M. Stationery Office. 15*s*.

Economic Survey of Europe in 1948. Prepared by the Research and Planning Division, Economic Commission for Europe, United Nations, Geneva. H.M. Stationery Office. 12*s*. 6*d*.

Economic Survey of Asia and the Far East, 1948. Prepared by the Secretariat of the Economic Commission for Asia and the Far East, United Nations. H.M. Stationery Office. 10*s*.

Report on the Progress of Western European Recovery, 1945–8. Organisation for European Economic Co-operation, Paris.

Nineteenth Annual Report of the Bank for International Settlements, 1948–9. Basle.

ways in which one could attempt to review them. I think the most useful way will be to look at the main problems and trends of the world economy and see what each of them in fact contributes to the understanding of these problems.

The great economic problems of the world to-day, most economists would agree, fall into two broad categories. The first is that of making the structural adjustment in the world's trade and in the economies of the different nations so that they can balance their overseas payments at levels which will provide tolerable standards of life for their peoples. The second is that of enabling countries with very low standards of living to make such advances that democratic institutions may survive and prospects of peace be improved; this particularly affects Asiatic countries.

Of the problem of structural adjustment, by far the greatest is that of the whole relations of Europe and North America. The dimensions of this problem have gradually been emerging during the past two years. The purely British aspects have been known in outline since the Stage II lend-lease negotiations of 1944 and the Washington loan negotiations of 1945. But the full difficulties of making the necessary adjustments have lately become much clearer. The very similar problems of the other countries of Western Europe were first appreciated during the Paris Conference of 1947. They became much more fully evident when the long-term programmes of the Western European Countries were presented to the Organisation for European Economic Co-operation during the late autumn of 1948. The *Interim Report on the European Recovery Programme* of O.E.E.C. disclosed the very wide gap that had to be closed if a balance was to be reached by 1952.

To the measurement of the dimensions of the problem none of these reports make any significant new contribution. For the Western European Countries, the *Interim Report* remains the best authority as to that. The O.E.E.C. *Report on Progress of Western European Recovery* shows that the balance of payments deficit with the non-O.E.E.C. world of the ten chief countries of Western Europe other than Germany had halved between 1947 and 1948. The *Economic Survey of Europe*, covering an appreciably wider area and including East–West trade with the European iron-curtain countries as intra-European trade, shows a reduction in the adverse balance of Europe as a whole from \$7·6 billion to \$5·6 billion, and a reduction in the balance as against the United States alone from \$5·7 billion to \$3·6 billion.

The earlier *Interim Report* of O.E.E.C. had expressed grave concern as to whether, with the then existing policies and exchange rates, there was a prospect of eliminating the Western European deficit before 1952–53. When that report was written at the end of 1948 it seemed likely, on the best assumptions that could be made of the absorptive power of markets and of the likely elasticities of demand, that there would be a deficit, if existing policies and exchange rates were continued, of the order of $3 billions. The practical problems, as they then appeared, were those of changing the economic policies and structures of Europe and of improving Europe's competitive power sufficiently rapidly to get a balance. But the central issue was, and remains, whether the balance with North America is to be a high-level or a low-level balance. Are the necessary adjustments to be made chiefly by contracting purchases from North America, or chiefly by expanding exports to North America both directly from Europe and on a multilateral basis from other countries?

The future prosperity of the world will turn very largely on which of those lines of solution predominates. It is fatally easy to slip into a situation in which the exports to North America are not greatly expanded, and purchases from North America are contracted to accord with the limited dollars that become available through North American imports and lending. Such a solution will be disastrous to the world. The countries of Europe, unless they can very rapidly readjust their economies, will find themselves, for a period at least, unable to provide sufficient food to maintain satisfactory nutrition and sufficient materials to keep their industries in full operation. The countries of North America will find themselves precluded from selling in their traditional markets and forced into tremendously painful structural readjustments. The potential political problems of Europe, if large-scale unemployment emerges, need scarcely be stressed; the democratic institutions of Western Europe may be in jeopardy. The potential political consequences for North America are scarcely less great. There will be grave dangers of growing antagonisms, of the break-up of the world not into two but into three great divisions.

Meanwhile the problems of practical policy for Europe are immensely difficult. On the one hand, it would be disastrous to do anything which would put obstacles in the way of the better solution—the achievement of a high-level balance with North America. On the other hand, it would be equally disastrous to make wholly unrealistic assumptions about possible European or

other longer-term earnings of dollars and to fail to take adequate action now to enable Europe and the United Kingdom to survive if dollar earnings are disappointingly low. The potential dangers in the latter case are so immense that any wise man would probably think it safer to guard against some of the more extreme risks.

The gravity of this problem cannot be exaggerated. One would expect any competent economic survey of 1948 to be primarily concerned with it, and with the prospects of a satisfactory solution through a high-level balance. In fact, only the *Economic Survey for Europe* has any substantial new contribution to make to this group of problems. But the contribution is so important and so distinguished that it should be read and pondered carefully by all who are concerned with these vital issues.

The Survey begins, naturally, with three chapters which trace the recovery of Europe in terms of production, of the search for internal equilibrium, and of capital formation. Down to the end of 1948 it remained possible to contemplate these figures with some measure of self-congratulation. And after a summer of self-incrimination it may be right for an Englishman to hearten himself by remembering, first, that not only industrial production but also output per man-year in British industry is revealed to be significantly higher than in 1938, and, second, that the share of personal consumption in the national income was no more than 69% in 1948 as against 78% in 1938; if we live outside our resources it is not because we are living softer.

But the heart of the Survey is reached in the following chapters, which deal with the trade problems of Europe—its pattern, the price movements and terms of trade, the extent to which prices have really been competitive, the balance of payments in overseas trade and the changes in intra-European trade. There are passages here which reflect the relative optimism of the end of 1948. We are told, for example, that "the recent trends in European exports and imports . . . reflect marked progress towards equilibium in trade", and that a continued rise comparable to that of 1948 would bring a balance with 1938 imports if it could be continued to mid-1951. But in the main there is hard-headed and realistic thinking. This is particularly true of the chapter on prices in international trade. Undoubtedly it contains some adventurous statistical calculations. One might question, for example, the validity of treating United States prices of food, drink and tobacco, affected as they are by internal agricultural policies, as more valid prices than those of which the United Kingdom buys its imports. But the chapter marshalls,

as no other work that I know has done, the evidence from which one could judge the competitive position of Europe at pre-devaluation exchange rates.

The chapter to which I think all readers will find themselves returning again and again is the final chapter on problems and prospects. That chapter puts the European problem in its world setting far better than anything else that has been written. I cannot hope to summarise it here. The main points which it stresses are these. The year 1948 has seen rapid and considerable improvement. The levels of production are back to pre-war levels or higher. But Europe is not paying for the materials necessary to maintain these high levels of output. That requires an increase of some 60% in exports. But the increase needs to be directed almost wholly to the earning of dollars or the saving of dollar imports. How far that can be done will depend more than anything on the ultimate pattern of the United States balance.

It then goes on to describe the dual nature of United States trade. The older pattern, in which the United States first engaged, showed exports of primary products, largely to Europe, paid for by imports of manufactures. As the United States has grown up to be a great manufacturing nation, a new pattern has emerged. Exports of manufactures have paid for imports of primary products, largely from tropical areas. In the war, the shortage of other supplies drove the world back on to the surplus production of North America. At the same time it made America more accustomed and able to dispense with European supplies of manufactures.

Which solution will the United States adopt? Will it export less, import more, or lend more? If it is to export less that must, if exchanges are relatively free, mean that American exports decline because European exports are cheapened and the terms of trade of Europe made more adverse. If the balance is to be reached by higher American imports, these would have to increase appreciably beyond the pre-war proportion of imports to national income—a proportion which has been significantly reduced during the war years. This again would be possible only if European terms of trade were worsened.

The third alternative of lending is posed in the Survey. Whether it can go far to bridge the gap in the United States balance of payments, I doubt. The surplus in 1948 was about $5·7 billion. Few American economists believe that commercial lending on a scale much more than $1–2 billion is likely. The

problem is thus in the main a question of the future of United States imports and exports.

Since the Survey was written we have taken the measures which will cheapen British and European exports generally. The great question is whether we can now prevent price rises and secure the high-level balance that the world so badly needs. This is a question which the Survey cannot solve. But it has made an immense contribution to the world's understanding of it.

If I may turn now to the *Economic Survey of Asia and the Far East*, that is in the main concerned with problems of production rather than trade. A valuable introductory section deals with the general characteristics of Asian economy and the salient changes since the War. It stresses the predominantly agricultural basis of the economies, their under-development industrially, their low productivity, but above all the high rates of population growth. While political independence has brought large areas of Asia new responsibilities, their problems have clearly become much more difficult—a point which emerged with great clarity at the recent Commonwealth Relations Conference. For the new democratic institutions must show progress if they are to be stable and permanent. And with small internal resources in Asia and diminished investible surpluses in Europe, the problems of the finance of the much-needed investment are very difficult. But above all, food production is failing to keep up with population growth. And with higher prices and increased need for food imports and low prices of certain exports, notably rubber, a number of the Asiatic countries have found great difficulty in balancing their payments.

The position of Japan in all this does not emerge with great clarity. Indeed there is more material about certain aspects of Japan in the *World Economic Report* than in the regional survey. It would seem clear that other Asiatic countries are hesitant to become dependent on Japan, and that for the moment at least Japan is tending to be more closely integrated with America than with Asia. In 1948 Japanese textile production was only about a quarter of the pre-war volume. The regional survey is sceptical of any rapid recovery of markets. But it is not easy to get from any of these sources a coherent picture of the trends of the Japanese economy, of the level at which payments look likely to be balanced, or of the probable longer-term commodity composition of Japan's exports. In the regional survey, Japan is one of the four countries for which no balance of payments analysis is given. In the world report, some total figures are given, but little

in the way of useful detail. This is a serious defect, since Japan's place in the longer-term world-trade pattern is of great importance.

In comparison with the European Survey, any reader will, I think, feel that this Asiatic Survey is a trifle pedestrian. It marshalls most of the necessary evidence. But it does not, in the same powerful way, get to grips with the great problems.

May I come back, then, to the qualities of these Surveys. *The Economic Survey of Europe in 1948* has a first place in the shortest possible list of " must's ". It is beautifully written. It faces the big problems. It adds immensely to our comprehension of them. If its bravest statistical adventures are occasionally open to challenge on technical grounds, it is seldom—if ever—that the resultant analysis would be changed by a change of the statistical evidence.

The *Report on the Progress of European Recovery* is a useful addition to our knowledge of the trends of the O.E.E.C. countries. It does not set out to tackle the big problems. That was done for O.E.E.C. in the *Interim Report.* But there is a great deal of useful and interesting statistical material here. A table, to take a single example, on p. 38 shows that of 222 million working days lost through industrial disputes in seven major European countries in 1919–21, as many as 147 millions were lost in the United Kingdom; of 45 million working days lost in 1946–48, less than 7 million were lost in the United Kingdom and over 35 million in France. In the main this volume is most useful for statistics of production in the O.E.E.C. countries, for trends of exports of different countries and for information on their internal financial stability.

The *Economic Survey of Asia and the Far East* is a very valuable source of statistical and other information, particularly on the food and production aspects of Asian problems. But it deals fully and thoroughly also with the vital problems of currency, banking, public finance and the control of inflation.

The Bank of International Settlements Annual Report also contains a vast amount of useful material. It is especially good on E.R.P. aid generally and on the detailed working and results of the European payments agreements which are administered through the Bank. There is a very interesting table (p. 20) which relates the E.R.P. net aid (after allowance for drawing rights given to other European countries) to the national incomes of the various countries. The net aid allotted for mid-1948 to mid-1949 was equivalent to 2·4% of the national income for the

United Kingdom. It was equivalent to 6·5% for France, and to 10·8% for the Netherlands. It was under 1% for Belgium and Sweden. There is a competent general discussion of the trends in European balances of payments and useful tables dealing with the United States balance. If the discussion of that problem is not on the high level of the Economic Commission for Europe's Survey, it certainly makes readily available further material for anyone who wishes to think about it. The whole volume forms a most valuable work of reference.

I have deliberately left until last the United Nations *World Economic Report, 1948*. This ought to be the volume in which the various regional problems, so admirably discussed in the European and Asiatic Surveys, are brought into the context of the general world situation, and focused in their relation to the general world trends. The *World Economic Report* fails completely to live up to any such ideal. It is, apart from a very few sections, an arid, jejune, ill-conceived and ill-written work of scissors and paste. It neither comprehends the world's problems nor adds to our understanding of them. It is at its best no more than a boring summary of what is much better written in the regional surveys. It contains, it is true, a certain amount of useful additional statistical material. Most of it might with advantage have been relegated to a volume of straight statistics. It contains some very dull accounts of the activities of the specialised agencies. At its worst it fails, because it so conspicuously fails in comprehension of the world's problems, to provide the statistics which would illuminate them.

I can illustrate this failure best by one or two examples. The success of Europe in reaching a high-level balance of payments will turn largely on success in achieving a large volume of manufactured exports. For individual European countries, and for O.E.E.C. as a whole, we know approximately the present volume of manufactured exports and how it compares with that of pre-war years. But we do not know the present total of world trade in manufactures nor how it compares with the pre-war trade, and we can only guess what has happened to the shares of the world trade held by the countries that are large exporters. We do not know enough to be able to judge how far the present increase of British or other exports of manufactures may be due to a larger world trade, to the temporary absence from the markets of Germany and Japan, or, on the other hand, what exactly has recently been happening to the United States share in the total. These are all figures for which before the war one relied on the

League of Nations statistics. That they are not included in this volume is very shocking.

The second example I would take is the treatment of the United States balance of payments. There is no single phenomenon in the world to-day that is of an importance at all comparable to that. How many dollars are going to be made available to the world? What were the prospects of larger earnings if prices could be reduced as they now have been by devaluation? What are the prospects of lending? What about the tariff? These are questions that leap to the mind of anyone who begins to think about these problems. The *World Economic Report*, covering not only Europe but also America, written at Lake Success, is surely the volume to which we ought to turn for an authoritative and responsible view on these urgent questions. What are we given? On the foreign trade and balance of payments of the United States there are some three pages of ineffectual discussion which has nothing more profound to say about manufactured imports than that in 1948 they were lower than pre-war but a little larger than in 1947. The only attempt to get to grips with big problems is in a concluding general section of the chapter on international trade and finance which is mainly concerned to stress the difficulties caused by lack of convertibility. To my mind this section throws little light on the real problems. It deals principally with the surface phenomena of excessive dependence on bilateral bargaining, on exchange control and on capital movements and gifts on a scale far beyond normal commercial lending. It does not probe down into the real underlying discrepancies between the existing economic structures and those that are appropriate to a post-war world. Nor does it ask how these discrepancies are to be removed.

I have taken space to pillory this piece of ineptitude because I do not regard it as venial. The economic pattern of the next generation is being worked out with almost break-neck speed. There is very grave danger of opportunities being missed and errors being made, which may not only impoverish Europe but also lead the world into a prolonged period of difficulty and disaster. If we are to overcome the difficulties and seize the opportunities, the first necessity is that the nature of the world's problems shall be fully understood. And to that end the first task is to secure that they shall be properly formulated. Once the problems are properly stated and properly faced we shall be some way to their solution. The Economic Commission for Europe has magnificently risen to the occasion. The central

organisation at Lake Success has completely and disastrously failed.

It is not easy for anyone remote from Lake Success to put his finger on the causes of this failure. It may be that any writer at Lake Success is too dominated by the daily life of an economy in which international trade is relatively unimportant. I myself would say that the volume appears to lack an architect. Before the war a series of distinguished economists gave a unity and direction to the corresponding surveys of the League of Nations. Mr. Kaldor and Mr. Lary have given a similar unity to the European Survey. I would suggest that the wholesale reorganisation which is clearly necessary should include bringing in some one in a similar capacity at Lake Success. Meanwhile one can only ask whether such volumes as this justify the immobilisation by the United Nations of so much talent.

There is one final matter about which, on behalf of all readers of these Surveys, I feel that I must register a strong protest. All of these volumes, good or bad, will be used not only for a single reading but as continuing works of reference. I myself have been using them as such for the greater part of the last month. But not a single one of them possesses an index. So long as one is working with them continuously, with the help of the tables of contents or the index of statistical tables, one can usually run to earth what one wants if one has sufficient determination and leisure. But after even a few days absence from them it begins to be difficult to find the reference or the figure that is needed. Surely it would be not only an act of reasonable courtesy, but an immense saving of man-hours and temper to many scholars and officials, if the United Nations and the other bodies concerned could be induced to prepare proper indexes of their publications.

AUSTIN ROBINSON

Sidney Sussex College,
Cambridge.

CURRENT TOPICS

THE International Economic Association has now been formally established. At a meeting of the Interim Executive Committee, held in Paris during July, it was reported that the national associations or representative bodies of five countries, the United States, Great Britain, France, Canada and Norway, had already signified their willingness to adhere to the Association, and that others had the matter actively under consideration.

Plans are now being worked out for a first meeting of the Council, to be combined with a small round-table Conference, and to be held during the Autumn of 1950.

THE International Association for Research in Income and Wealth, under the Chairmanship of Professor Simon Kuznets, held its first meeting to discuss technical papers at King's College, Cambridge University, August 27 to September 2. The membership of the Association is composed entirely of scholars working in these fields. About seventy-five persons from twenty-four countries assembled to discuss the programme centred around four general topics: (1) the theory of social accounting; (2) recent experience in the use of social accounting in six countries (Sweden, Norway, Netherlands, France, Great Britain and the United States); (3) the role of government in and the effect of socialisation on the measurement of national income; and (4) the problems of measuring and comparing real income. The International Association plans to publish a volume arising out of the papers discussed at these meetings.

Mr. J. R. N. Stone was elected Chairman to succeed Professor Kuznets, and the following members of council were elected: Professor Morris Copeland, Mr. Milton Gilbert, Professor E. F. Lundberg, Professor F. Perroux, Professor V. K. R. V. Rao, with Professor Kuznets *ex officio* and Dr. J. B. D. Derksen, Professor B. Barberi and Mr. Colin Clark as co-opted members. The new Secretary is Miss Phyllis Deane, succeeding Dr. D. Creamer.

Henceforth the secretariat of the International Association will be housed in the National Institute of Economic and Social Research, 2 Dean Trench Street, Smith Square, London, S.W.1.

PROFESSOR BRYAN TEW, now Professor in the University of Adelaide, has been appointed to the Chair of Economics in the University of Nottingham.

Houblon-Norman Fund.—The Trustees, on the recommendation of the Advisory Committee, have made the following awards for 1949/50:—

Fellowship.

J. A. S. L. LEIGHTON-BOYCE, Research Student, University of Oxford.	Country Banking in the Eighteenth and Early Nineteenth Centuries.

Research Grants.

W. C. E. Hartley, Bank Official.	History of Banks, Bankers and Banking in Yorkshire.
J. M. Holden (Fellow 1948/49), Assistant Lecturer, London School of Economics, from October 1949.	Historical Study of Negotiable Instruments.
F. R. J. Jervis, Assistant Lecturer, Technical College, Derby.	Economic Development of the Large-Scale Retail Unit.
F. A. Judd, Bank Official.	Migration of Industry from the United Kingdom to British Territories Overseas since 1945.
R. O. Roberts (renewed for a second year), Lecturer, University College of Swansea.	Economic History of Non-Ferrous Metal Smelting in Wales.
P. E. Smart (renewed for a second year), Bank Official.	Banking Case Law.
J. A. P. Treasure, Assistant Lecturer, University College of South Wales and Monmouthshire, Cardiff.	Economic and Financial Problems of the British Film Industry.
J. S. G. Wilson, Lecturer, London School of Economics.	Development of Indian Banking since 1939.

An offer of awards for 1950/51 will be made early in 1950. Further information may be obtained from the Secretary, Houblon-Norman Fund, c/o The Bank of England, London, E.C.2.

The following have compounded for life membership of the Royal Economic Society :—

Banerjea, Prof. N.
Brown, W. A.
Cameron, E. C.
Dorai, S.
Marathe, S. S.
Rosa, R. V.
Rousseaux, Prof. P. P.
Townsend, R. G.

Library Composition : Keble College.

The following have been admitted to membership of the Society :—

Abramovitz, Prof. M.
Adedeji, H. S. A.
Adil, A.
Allais, M.
Arlow, T.
Athol, R. C.
Bailey, R. S.
Bakken, H. H.
Ballester, J. H.
Barnes, J. D.
Bedi, M. K. L.
Bhiwandker, R. B.
Bidikar, V. A.
Blaker, G. F.
Bond, J. W.
Bonerjee, K.
Botsio, M.
Bowles, P. A. J.
Brault, F.
Brown, A. S.
Brown, E.
Brown, K.
Buchanan, Prof. J. M.
Bullock, H. P.
Bumfrey, E. C.
Cantral, C.
Carruthers, J. P.
Charles, D. H.
Clarke, C. G.
Clerk, I. C.
Coleman, P.
Cordero, F. A. Jr.
Corea, G.
Cozens, P. C. S.
Deb, H. C.
Donovan, J. B.
Douglas, H.
Dowdy, E. H. R.

Dravid, G. G.
Eichelgruen, G.
Errington, A. E.
Essai, B. P.
Fadul, M.
Fels, Prof. R.
Fletcher, J. C.
Freeman, G. B.
Galbraith, J. A.
Gannage, E. A.
Gardner, J.
Garuge, D. T. L.
Godson, I. T.
Golend, M.
Goodall, A.
Gray, H. H.
Green, Dr. P. M.
Grosschmid-Zsogod, Prof. G. B.
Gurzynski, Z. S.
Hampton, J. D.
Hansen, K.
Hanson, B. G.
Harper, C. G.
Hasan, O.
Haworth, A. A.
Hines, H. H.
Hodges, A. W.
Hollis, L. J.
Hood, Miss J. M.
Howard, A. E.
Hutton, Sir Maurice
Hyman, R.
Jenks, A. H.
Johnson, E. C. C.
Keddie, A. E.
Kirwan, J. R.
Knight, R.
Knott, G. J.
Knox, A. D.
Laast, W. L.
Lachmann, Prof. L. M.
Laffer, K.
Lamba, K. K.
Lambert, C. M.
Le Ball, N. S.
Lee, H. F.
Lee, M. W.
Lewis, J. M.
Loizides, A. I.
Louis, A.
Loveman, C. E.
McCristol, I.
MacGarry, J. P.
McMahon, W.
Maisner, D.
Maitland, D. W.
Mann, A. G.
Maung, U.
Meredith, K. J.
Miller, R. M. G.
Minkes, L.
Moon, A. R.
Moor, M.
Morley, E.
Mukherjee, Prof. S.
Mukerji, S. B.
Nevin, E. T.
Nwokedi, J. A.
O'Leary, M. P.
Ososanya, Z. O.
Pace, L. M.
Palmer, E. R.
Papafilis, N.
Parsons, S. H. J.
Partridge, F. H.
Peet, I. F.
Pinks, N. V.
Polo, M.
Porter, Prof. A. R.
Raine-Allen, F., M.B.E.
Rathnam, Mrs. G.
Raunhardt, Hans.
Reeves, E. W.
Reynolds, S. G.
Riaz, M. A.
Robinson, G. R.
Rowbotham, H.
Roy, A. D.
Ruda, E. E.
Semple, G. A. S.
Sewgobind, R.
Sharp, C. A.
Sherston, Miss K. E.
Silver, A. N.
Simpson, B. A.
Spencer, C.
Spencer, E. W.
Stake, W.
Staveley, R. W.
Stykolt, S.
Sutherland, R. A.
Tanna, S. R.
Tew, A. D.
Thompson, L. M.
Thomson, E. J.
Tibbles, J.
Torrey, E. P.
Tsuru, Prof. S.
Tu, U. Than.
Turnbull, C. H.
Van der Zuch, H. A.
Vedera, P. L.
Vitkovitch, B.
Watkins, C.
Wearne, E. C.
Whalen, R. J.
White, A. H.
Whyte, J. G.
Wilkins, Dr. C. J.
Williams, B. R.
Winnick, L.
Woodbury, L. W.
Yilancioglu, C.
Yu, K. H.
Zaman, S. W.

The following have been admitted to Library membership of the Society :—

Associated Newspapers of Ceylon, Colombo.
Banco National de Cuba, Havana.
Branch of the College of Agriculture, California.
British Iron & Steel Research Association.
Bureau of Economics & Statistics, Bombay.
Economic Research Council.
Food Research Institute, Stanford University.
Giulio Einaudi Editore, Torino.
Harvard Law School.
Indian Institute of Science, Bangalore.
International General Electric Co., New York.
National War College, Washington.
Royal Military College, Kingston, Ontario.
St. Louis University School of Commerce & Finance.
Selly Oak Colleges.
Societe Fouad ler d'Economie Politique de Statistique, Cairo.
Stanford University, Department of Economics.
State College of Washington.
Store Merchandising Magazine.
University of South Dakota.

RECENT PERIODICALS AND NEW BOOKS.

Journal of the Royal Statistical Society.

VOL. CXI, PART IV, 1948. *Consumer Expenditure in India, 1931–2 to 1940–1 :* R. C. DESAI. *Industrial Productivity in England and Scotland :* H. W. SINGER and C. E. V. LESER. *Wholesale Prices in 1947 :* EDITOR OF THE STATIST. *Annual Report of the Council. Proceedings of the One Hundred and Fourteenth Annual General Meeting.*

Economica.

AUGUST 1949. *The Economic Theory of Index Numbers :* R. G. D. ALLEN. *Rehabilitation of Time Dimension of Investment in Macrodynamic Analysis :* S. C. TSIANG. *Period Analysis and Inflation :* R. TURVEY. *The National Insurance Funds :* A. T. PEACOCK. *Evolution of the Exchange Control :* A. H. SMITH. *Independent Applications of National Accounts :* J. SANDEE. *The Economy of Europe :* D. J. MORGAN.

The Economic History Review.

SECOND SERIES, VOL. 1, NOS. 2 and 3, 1949. *Scientific Bookkeeping and the Rise of Capitalism :* B. S. YAMEY. *Concentration and Specialization in the Lancashire Cotton Industry, 1825–1850 :* A. J. TAYLOR. *General Labour Unions in Britain, 1889–1914 :* E. J. HOBSBAWM.

The Political Quarterly.

JULY–SEPTEMBER 1949. *The Dream and the Business :* G. D. H. COLE. *Music in Moscow :* L. WOOLF. *University Development :* K. LINDSAY. *Soviet Leadership Problems :* J. N. HAZARD. *The Latin American Aprista Parties :* R. J. ALEXANDER. *The Present and Future of Palestine :* N. BENTWICH. *Local Government in Western Germany :* J. W. F. HILL. *The Indian Constitution :* R. V. SAMPSON. *Citizen or Ex-Service Man :* F. GEORGE.

Transactions of the Manchester Statistical Society.

SESSION 1948–49. *The Utility Cloth and Clothing Scheme :* H. E. WADSWORTH. *The Cost of a Family :* A. HENDERSON. *Colonial Development :* W. A. LEWIS. *Accountants and the Inflation :* W. T. BAXTER. *The Development and Organisation of Irish Industry :* R. C. GEARY.

The Eugenics Review.

JULY 1949. *The Population Problems of India and Pakistan :* S. CHANDRASEKHAR. *Race Mixture : a social or a biological problem ? :* A. DICKINSON.

Bulletins on Soviet Economic Development (Published by the Department of Economics and Institutions of the U.S.S.R., Faculty of Commerce and Social Science, University of Birmingham).

BULLETIN, MAY 1949. *The Main Trends of Industrial Development in the U.S.S.R. between 1913 and 1940. The Effect of World War II on Industry. The Aims of the Five-Year Plan for 1946–1950. Actual Post-War Industrial Developments.*

Bulletin of the Oxford University Institute of Statistics.

MAY 1949. *The Movement of Labour in 1948 (Part I) :* C. A. R. CROSSLAND. *The Cost of Living, 1938–1948 :* D. SEERS.

JUNE 1949. *A "Human Needs Diet" :* T. SCHULZ. *Changes in Real National Income :* D. SEERS and P. F. D. WALLIS.

JULY and AUGUST 1949. *A National Income Matrix :* D. SEERS and P. F. D. WALLIS. *The Movement of Labour in 1948 (Part II) :* C. A. R. CROSSLAND. *Those "Frightfully High" Profits :* T. BARNA. *Should Sterling be Devalued ? :* T. BALOGH.

London and Cambridge Economic Service.

AUGUST 1949. *The New Dollar Crisis :* G. S. DORRANCE. *The U.S.A. in Recession :* M. W. REDER. *Industrial Production : the official and L.C.E.S. index-numbers compared :* W. B. REDDAWAY and A. ADAMS. *Finance :* F. W. PAISH. *Wage Rates :* A. L. BOWLEY. *Building and Civil Engineering :* IAN BOWEN. *World Commodity Survey :* C. F. CARTER.

Accounting Research.

VOL. I, NO. 2. JULY 1949. *The Effects of the Local Government Act, 1948 and Other Recent Legislation on the Finances of Local Authorities :* RESEARCH WORKING PARTY. *Plant, Depreciation, and 1949 Price Levels :* T. H. SANDERS. *Depreciation Allocations in Relation to Financial Capital, Real Capital and Productive Capacity :* H. NORRIS. *Standardised Accountancy Considered Internationally :* S. J. LENGYEL. *Measuring Industry's Output :* G. L. S. SHACKLE. *The Classification of Post-War Refunds of Excess Profits Tax :* R. W. MOON. *Worsted Spinning Costs :* F. SEWELL BRAY, C. SMITH and D. R. BEDFORD SMITH. *Some Aspects of University Finance and Accounts :* R. LEWIN.

The Banker.

JULY 1949. *America—Recession or Slump ? Germany's Capital Needs. Ireland : an economic survey.*

AUGUST 1949. *Crisis—unofficial. Policy of World Bank :* H. BRATTER. *Belgian Monetary Policy :* G. GORDON. *The Threat to Insurance.*

SEPTEMBER 1949. *Britain's Aid to Sterling Area :* E. H. STERN. *Twilight of Cheap Money ? Fund and Bank at Washington :* H. BRATTER. *Northern Ireland : a financial and economic survey.*

The Bankers' Magazine.

JULY 1949. *Banking Education in the Commonwealth, Eire and U.S.A. :* J. C. STICKLER.

AUGUST 1949. *Endemic Crisis. European Trade and Payments. Further Reflections on Devaluation :* C. L. LAWTON. *Relief from Double Taxation of Investment Income :* G. WILLHANS.

SEPTEMBER 1949. *German Incertitudes :* M. J. BONN. *Staffing and Mechanisation for Efficiency :* R. HINDLE. *Liquidity Control of Banks within Dependent Monetary Systems :* E. FUERST.

Barclays Bank Review.

AUGUST 1949. *The Threat to Exports. The West African Cocoa Industry. Industrial Production.*

District Bank Review.

SEPTEMBER 1949. *Crisis Policy. Juggling with the Pound. Britain the Shopkeeper.*

National Provincial Bank.

AUGUST 1949. *Nationalisation of Insurance :* SIR JAMES GRIGG. *The State of Trade and Industry :* H. G. HODDER.

Westminster Bank Review.

AUGUST 1949. *The Instability of the American Economy :* R. S. SAYERS. *A Middle Course. Economics of Land Planning :* SIR ARNOLD PLANT. *New Materials for Industry. The Poultry Industry.*

Planning.

VOL. XVI, NO. 300. *The 300th Broadsheet. A record of the early history of P.E.P. and an appreciation of its work.*

VOL. XVI, NO. 301. *Population and the Press. The Royal Commission Reports.*
VOL. XVI, NO. 302. *Machines for the Mines.*

Town and Country Planning.

VOL. XVII, NO. 66. *"Good Agricultural Land"* : C. S. ORWIN. *Town Cramming; the art of maximising density* : F. J. OSBORN. *The United Nations in Housing and Planning* : ELIZABETH HENDERSON.

The Economic Record.

JUNE 1949. *The Consumer in a Planned Economy* : F. R. E. MAULDON. *The Composition of Personal Income* : H. P. BROWN. *Australian Rural Population Changes* : J. GENTILLI. *Robot Economics* : K. SINGER. *New Zealand Official Estimates of National Income* : W. ROSENBERG.

The South African Journal of Economics.

JUNE 1949. *Wool in the South African Economy* : F. J. C. CRONJE. *Some Thoughts on the Union's Economic Outlook* : C. S. RICHARDS. *Report of the Coal Commission, 1946–47* : B. H. DAVIES. *Some New Emphasis in Population Analysis* : RHONA ROSS. *Returns to Capital Invested in the Gold Mining Industry in South Africa* : S. R. HELLIG. *Comments* : J. E. KERRICH.

The Indian Journal of Economics.

JANUARY 1949. *Can the Government of India Finance a Plan at Present?* : B. MISRA. *Equilibrium Exchange Rates and the I.M.F.* : S. S. RAO. *International Economic Relations* : J. MUTYALA and M. K. SEN. *Post-war Labour Disputes in Hyderabad and their Settlement* : M. A. QADIR. *Industrial Relations in India* : S. BHATTACHARYA, H. K. CHATURVEDI and K. L. V. AYYAR, *and with special reference to Hyderabad* : H. ALI. *Nationalisation of Industries—the role of local bodies* : S. VENKATESAN. *Inaugural address* : J. N. CHAUDHURI. *Presidential address* : J. C. SINHA.

Sankhyā. The Indian Journal of Statistics.

VOL. 9, PARTS 2 and 3. MARCH 1949. *Anthropometric Survey of the United Provinces, 1941; a Statistical Study* : P. C. MAHALANOBIS, D. N. MAJUMDAR and C. R. RAO.

The Indian Journal of Commerce.

SEPTEMBER 1948. *Conference number. Our Policy of Nationalisation* : K. K. DAS. *Nationalisation in India* : K. C. LALWANI. *Nationalisation of Road Transport* : V. V. RAMANADAHM. *Nationalisation of Central Banking in India* : K. K. SHARMA. *Nationalisation in the Free Society of India* : B. GANGULY. *Inflation and Borrowing in India* : K. N. BHATTACHARYYA. *Nationalisation* vs. *Public Corporations* : R. RAMDAS. *Some Aspects of Our Sterling Balances* : K. K. SHARMA. *The Problem of Inflation* : O. PRAKASH. *Indian Monetary Problems* : H. NARAIN. *Indian Insurance and Cheap Money* : S. SEN GUPTA. *Investment of Life Office Funds with Special Reference to India* : B. DHAR. *Nationalisation of India Insurance* : A. PANDEY. *A Lawyer's View of Insurance* : K. L. BASU. *Nationalisation in India* : S. N. DUTT.
MARCH 1949. *Trends in India's Commercial Development, I* : K. C. LALWANI. *Our Dwindling Sterling Assets* : B. DHAR. *Theory of Size* : M. M. MEHTA. *Standard Costs* : K. S. H. RAO. *Nationalisation* : B. N. DAS GUPTA. *Competition and Railway Tariffs* : R. RAMDAS.

Tata Quarterly.

APRIL 1949. *Foreign Capital.*
JULY 1949. *Fiscal Provisions.*

International Labour Review.

MAY 1949. *Psychological and Human Aspects of Vocational Training:* F. BILLON. *A Decade of Labour Legislation in India, 1937–1948: II. Household Re-equipment Grants for Workers in Belgium; a social experiment:* G. EMERY. *Agricultural and Industrial Activity and Manpower in Iran.*
JUNE 1949. *The Contribution of the I.L.O. to Peace:* E. PHELAN. *Works Councils:* J. DE GIVRY. *Post-War Trends in Social Security: Income Security, I. National Action to Promote Full Employment.*
JULY 1949. *A Survey of Economic and Social Conditions in Japan. Post-war Trends in Social Security: Income Security, II. Holidays with Pay. The Distribution of Industry in Great Britain, and its Relation to Manpower Problems.*
AUGUST 1949. *Post-War Trends in Social Security: Medical Care, I. Vocational Guidance in the Argentine Republic:* J. KAPLAN. *The International Movement of Trainees.*

United Nations Economic Bulletin for Europe.

VOL. 1, NO. 1, 1949. *Review of the Economic Situation in Europe. January–March 1949. Population Changes in Europe 1938–1947. Note on European Trade Agreements for 1949. European Economic Statistics.*

World. The International Magazine (*United Nations*).

Amongst other articles are included:—

APRIL 1949. *Inflation by Taxation:* F. W. MAIN. *Whose Ruhr and Why?:* ALISON OUTHWAITE. *Electricity International:* H. HARRIS.
MAY 1949. *The Lost Land of Jesus:* D. PERETZ. *Farm Machinery International:* H. HARRIS. *Spelling Out Point 4:* W. THORP. *What U.S. Capital wants Abroad:* M. A. HEILPERIN.
JUNE 1949. *Should the U.S. Senate Ratify the U.N.'s War on Genocide:* J. N. ROSENBERG and F. E. HOLMAN. *What's Right with the I.T.O.:* W. L. BATT. *What's Wrong with the I.T.O.:* C. E. CALDER. *Unity; the missing keystone in U.S. foreign economic policy:* H. HARRIS.
JULY 1949. *Inside Story of Paris Conference. Europe still Wonders About the U.S.:* L. DOLIVET. *Labor's New World Union:* P. MURRAY. *Battle Order of World Espionage. Strategy for a Depression-proof America:* L. H. KEYSERLING. *When E.C.A. Ends, Trouble Begins:* F. STERNBERG. *What the Soviet Budget Conceals—and Reveals:* E. RAYMOND. *Office Equipment International:* H. HARRIS.

The Quarterly Journal of Economics.

MAY 1949. *Vilfredo Pareto (1848–1923):* J. A. SCHUMPETER. *The Accelerator as a Generator of Steady Growth:* S. S. ALEXANDER. *Central Banking in the Light of Recent British and American Experience:* R. S. SAYERS. *The British Payments and Exchange Control System:* H. A. SHANNON. *The A & P Case: a study in applied economic theory:* M. A. ADELMAN. *The Multiplier in a Tri-Fiscal Economy:* H. M. SOMERS.

The Annals of the American Academy of Political and Social Science.

JULY 1949. *World Government.*

The Journal of Political Economy.

AUGUST 1949. *Monetary Reform in Western Germany:* F. H. KLOPSTOCK. *Public Works and Economic Stability:* J. MARGOLIS. *Psychological Aspects of Economic Thought:* W. A. WEISSKPOF. *Plans for a National Bank in Spain, 1701–83:* E. J. HAMILTON. *Federal Estate Taxes and Philanthropic Bequests:* C. L. HARRISS. *Tariffs, International Demand, and Domestic Prices:* L. A. METZLER.

The American Economic Review.

JUNE 1949. *The Havana Charter :* SIR HUBERT HENDERSON. *International Disequilibrium :* R. F. MIKESELL. *Prices, Money and the Distribution of Goods in Postwar Germany :* H. MENDERSHAUSEN. *Analysis of Dissaving :* G. KATONA. *The Antitrust Laws :* D. M. KEEZER.

Social Research.

JUNE 1949. *From Calhoun to the Dixiecrats :* R. HOFSTADTER. *A Free-Trade Area :* R. SCHÜLLER. *Deliberate Industrialization :* H. G. AUBREY. *Time and the Human Spirit :* G. BOAS. *The Labor Movements in Australia and New Zealand :* D. L. GLICKMAN. *The Race Question in American Immigration Statistics :* H. Zeisel. *The Resolution of Conflict :* K. SINGER.

Foreign Affairs.

JULY 1949. *The Ideological Combat :* G. T. ROBINSON. *India as a World Power :* AN INDIAN OFFICIAL. *The Lesson of the World Bank :* J. J. MCCLOY. *Indonesia and the Problem of Southeast Asia :* H. J. VAN MOOK. *Soldiers need Wings: the development of Ground-Air Forces:* ADMIRAL C. M. COOKE. *The Rebirth of Social Democracy :* J. BRAUNTHAL. *The British Commonwealth and Western Union :* LORD ALTRINCHAM. *The Test of Yalta ;* McG. BUNDY. *Measures to Prevent a Slump :* ROY HARROD. *Military Organization under the Atlantic Pact :* G. F. ELIOT. *Mukden to Pearl Harbor ; the foreign policies of Japan :* J. W. BALLANTINE. *The Sudan Emerges into Nationhood :* MARGERY PERHAM.

The Southern Economic Journal.

JULY 1949. *The Present Status of Labor Unions in the South—1948 :* F. T. DE VYVER. *Functions of National Unions as Contrasted with their Locals :* P. A. BRINKER. *A Theory of the Automatic Reabsorption of Technologically Displaced Labor :* N. BELFER. *Economic Aspects of Southern Grain Rates :* M. ROBERTS. *Regional Implications of Marginal Cost Rate Making :* J. M. BUCHANAN. *Factors to be Considered in Appraising Formula Plans :* C. S. COTTLE.

Journal of Farm Economics.

VOL. XXXI, NO. 2, MAY 1949. *Mr. Hoover's Department of Agriculture :* L. SOTH. *Measurement of Agricultural Production :* C. F. SARLE and T. C. M. ROBINSON. *Estimates of Agricultural Employment and Wage Rates :* T. C. M. ROBINSON and P. P. WALLRABENSTEIN. *The Social Sciences in Experiment Station Research :* M. R. BENEDICT. *Farmers' Price Anticipations and the Role of Uncertainty in Farm Planning :* O. H. BROWNLEE and W. GAINER. *Japan ; the Race between Food and Population :* B. JOHNSTON. *Basic Economic and Welfare Aspects of Farm Technological Advance :* E. O. HEADY. *E.C.A. in Action on the Food and Agricultural Front.*

American Affairs.

VOL. XI, NO. 3, JULY 1949. *Monster Government ; Notes on the Report of the Hoover Commission :* G. GARRETT. *This Employee Society :* V. JORDAN. *Return to the Middle Ages :* M. J. BONN. *How it Happened to the Farmer. Can Government Kill Depression ? :* H. G. MOULTON. *Why the Air Industry is Sick :* E. V. RICKENBACKER. *What is Happening to our Bill of Rights ? :* E. JEROME.

Industrial and Labor Relations Review.

JULY 1949. *Industrial Peace and Conflict : a study of two Pacific Coast Industries :* P. ELIEL. *Experimental Criteria for Evaluating Workers and Operations :* S. B. LITTAUER and A. ABRUZZI. *Economic Function of Strikes :* E. H. JURKAT and DOROTHY B. JURKAT. *The Closed Shop is not a Closed Issue :* G. F. JANSEN.

Harvard School of Business Administration.

BULLETIN No. 130. *Operating Results of Department and Specialty Stores in 1948*: M. P. MCNAIR.

BULLETIN No. 131. *Operating Results of Limited Price Variety Stores in 1948*: ESTHER M. LOVE.

Harvard Business Review.

JULY 1949. *The Roots of Business Responsibility*: B. W. DEMPSEY. *Where is Organized Labor Going?*: D. R. RICHBERG. *Understanding Union Attitudes*: C. S. GOLDEN. *Leadership, Past and Present*: N. S. B. GRAS. *Reducing the Bank Deposit Insurance Premium*: A. IHLEFELD. *Facing the Business Future*: J. L. SNIDER. *Atomic Power in Selected Industries*: S. H. SCHURR. *Employee Productivity in Department Stores*: ELIZABETH A. BURNHAM. *Arbitrating a Wildcat Strike*: W. A. LEWIS. *Two Concepts of Accounting*: T. H. SANDERS.

Studies in Business and Economics.

MARCH 1949. *Baltimore: some economic indicators. Comparisons with Other Cities. Relation to State of Maryland.*

JUNE 1949. *Seasonal Fluctuations in Maryland Business.*

Current Business Studies.

JUNE 1949. *The President's Economic Program (Addresses delivered at a meeting of the Trade and Industry Law Institute, New York)*: L. H. KEYSERLING, J. M. CLARK and J. VINER.

Chronica Botanica.

VOL. 11, No. 4. *Freedom from Want. A survey of the possibilities of meeting the world's food needs*, edited by E. E. DETURK. *Population and Food Supply*: H. R. TOLLEY. *World Soil and Fertilizer Resources in Relation to Food Needs*: R. M. SALTER. *Crop Production Potentials in Relation to Freedom from Want*: K. S. QUISEMBERRY. *Animal Production in an Efficient Food Economy*: F. B. MORRISON. *The Economics of Freedom from Want*: J. D. BLACK. *Obligations of Science toward Freedom from Want*: M. A. MCCALL.

Population.

APRIL–JUNE 1949. *Le Contrôle des recensements*: L. HENRY. *Minimum vital et niveau d'existence des familles suivant le nombre d'enfants*: G. MALIGNAC. *La famille devant le problème du logement*: R. COLIN. *Le problème sucre-alcool et la population française*: L. TABAH. *Progrès technique et répartition professionnelle de la population (2e partie).*

Statistiques et Études Financières.

JUNE 1949. *Évolution de la masse monétaire au cours du premier trimestre 1949. Évolution du crédit au cours du premier trimestre 1949. Allemagne occidentale: la Consitution de Bonn et ses aspects financiers. Suède: le revenu national de 1923 à 1948.*

JULY 1949. *Évolution de la situation monétaire depuis 1946. L'évolution du volume des échanges d'après le recouvrement des taxes sur les transactions. Canada: le budget fédéral pour 1949–1950. États-Unis: le troisième rapport de l'Administration de Coopération Économique. Suisse: le revenu national de 1938 à 1947.*

SUPPLEMENT FINANCES COMPARÉES, No. 2, 1949. *Le traité d'union douanière entre la France et l'Italie, du 26 mars 1949. États-Unis: le message budgétaire pour 1949–1950. Le rapport économique pour 1948. Grande-Bretagne: L'exposé du budget de 1948–1949. Le revenu national et les dépenses du Royaume-Uni de 1946 à 1948. U.R.S.S.: L'exposé du budget pour 1949.*

AUGUST 1949. *Les Contributions directes et les taxes assimilées en* 1948. *Allemagne occidentale: le revenu national de la bi-zone. États-Unis: le rapport économique semestriel. Grande-Bretagne: le rapport sur les monopoles de fait de* 1948.

Journal de la Société de Statistique de Paris.

JULY–AUGUST 1949. *Le recensement général des agents des services publics effectué en 1947 :* M. BRICHLER. *Quelques errements dans l'utilisation économique des statistiques agricoles :* H. BROUSSE. *Remarques sur l'évolution économique et financière de la France depuis la libération :* A. VÈNE. *Fluctuations longues et oscillations cycliques :* ROUQUET LA GARRIGUE.

Documentation Économique.

VOL. VIII, NO. 28, 1949.

Annales D'Économie Politique.

APRIL–JUNE 1949. *Trois crises :* P. REYNAUD. *Karl Marx : sa méthode historique et ses analyses économiques :* A. VÈNE. *Le pétrole dans l'économie française :* A. RISLER.

Économie Appliquée.

APRIL–SEPTEMBER 1948. *John Maynard Keynes :* R. F. HARROD. *La théorie générale de l'emploi :* JOAN ROBINSON. *Le plein emploi :* F. A. HAYEK. *La place de la théorie générale de l'emploi, de l'intérêt et de la monnaie dans l'histoire de la pensée économique :* F. A. LUTZ. *Esquisse d'une théorie de l'économie dominante :* F. PERROUX. *La préférence pour la liquidité :* C. GRUSON. *La théorie générale de l'emploi, de l'intérêt et de la monnaie :* P. CHAMLEY. *Notes sur la fonction de consommation :* G. ROTTIER.

OCTOBER–DECEMBER 1948. *L'économie de bien-être et la Théorie des surplus du consommateur :* J. R. HICKS. *Quelques applications de la Théorie des surplus du consommateur :* J. R. HICKS. *L'évaluation du Revenue national et la politique économique quantitative :* F. PERROUX. *Les Comptes de la Nation et le Capital national :* F. PERROUX. *Les Budgets nationaux :* J. MARCZEWSKI. *Comptabilités d'entreprises et Revenu national :* P. URI. *Un précurseur sans disciples : Lavoisier :* F. SELLIER.

JANUARY–MARCH 1949. *La comparabilité dans le temps et dans l'espace, des évaluations du revenu national :* C. GINI. *Comptabilité sociale, agrégation et invariance :* R. STONE. *Remarques sur la comptabilité publique dans ses rapports avec les tentatives d'établissement d'un " budget national " :* F. NEUMARK. *Les nationalisations et la comptabilité nationale :* F. PERROUX. *La comptabilité économique nationale et ses liaisons avec les comptabilités privée et publique :* J. MARCZEWSKI. *Essai d'analyse graphique d'une comptabilité nationale :* J. MARCZEWSKI and G. T. GUILBAUD. *Le budget national norvégien :* J. DESSAU.

Bulletin de L'Institut de Recherches Économiques et Sociales.

JULY 1949. *La conjoncture économique de la Belgique :* L. H. DUPRIEZ. *Statistiques économiques courantes.*

De Economist.

MAY 1949. *Enkele beschouwingen over het rantsoeneringsysteem :* H. RIJKEN VAN OLST. The approach of the end of rationing gives an opportunity of looking back at some of the lessons to be gained from ten years of the system. The discussion rests on a distinction between those systems which are marked by " obedience " (where the regulations are observed), and those marked by " disobedience " (where there is a black market, etc.). Questions are discussed from the " goods side " and from the " money side " : a distinction is also drawn between the consequences which follow where the ration can be estimated in terms of money (*i.e.*, where it is possible to convert the coupon into money), and where this is not possible. The repercussion of a rationing system on the " functions of money " is considered. It is possible to speak of a

limitation of the functions of money only in cases where coupons cannot be estimated in terms of money; as more goods become "free," this limitation diminishes in significance. The article concludes with a criticism of certain views expressed by Koopmans regarding the place of money in a controlled economy, and in particular deals with the problem of determining the value of money under a system of rationing. *De leer van de kostprijs:* J. L. MEY. A very detailed review and criticism of a book bearing the same title (*The Theory of Cost-price*), written by H. J. v. d. Schrooff, and published in 1947.

JUNE 1949. *Over de betekenis van het begrip "rationeel handelen" in de economie:* F. J. DE JONG. A historical discussion of the meaning of "rational behaviour." In the first (Physiocratic) period, rational behaviour was viewed as the pursuit of one's own interest; on the grounds of a deistic theology, it was held that the pursuit of self-interest also provided the key for the economic interdependence of society. In the second period (Adam Smith) the view was essentially the same, but the theological infiltration was removed, and social interdependence was explained with the help of the "invisible hand" and the view of Mandeville that egotism provides the driving force of society. In the third period (Bentham), rational behaviour becomes more specific, and is identified with the pursuit of pleasure and the avoidance of pain; linked with this was the idea of the "economic man." In the fourth period there is no place for *a priori* assumptions, and economics is separated from philosophical reflections. The phrase "rational behaviour" loses its normative character. Use is made in the discussion of Hennipman's distinction between economic motive and economic principle. Ends are no longer tested for their rationality. Economics is neutral as between ends (Robbins). After a survey of recent discussions, the writer suggests that we should think less in terms of the "economic man" than of what Quetelet called the "modal man," and of "modal behaviour." *Afzet en prijsvorming van electriciteit voor woningen:* H. S. HOUTHAKKER. An investigation into the price-policy of some of the more important electricity undertakings in the Netherlands, with a view to elucidating the connection between the price and the use of current.

Schweizerische Zeitschrift für Volkswirtschaft und Statistik.

JUNE 1949. *Entvölkerung und Landflucht:* A. KOLLER. *Volkswirtschaftliche Gesichtspunkte im Bodenrecht:* H. WANNER. *Die volkswirtschaftliche Bedeutung der Einkommenssicherung der Landwirtschaft:* C. LA ROCHE.

AUGUST–OCTOBER 1949. *Itereierte Konzentration:* L. V. FURLAN. *Loi probabilitaire complètement formulée et familles d'intervalles de confiance:* L. FÉRAUD. *Bildungswert der Statistik:* H. SCHORER. *Die verheiratete berufstätige Frau in der Schweiz:* A. KOLLER. *Sterile und kinderarme Ehnen in der Schweiz:* C. BRÜSCHWEILER. *Des pertes infligées à l'âge actif et à l'âge de la procréation par certaines causes de décès en Suisse:* L. HERSCH. *Überprüfung der Sterbeziffern:* O. H. JENNY. *Internationale Vergleichbarkeit der Todesursachenstatistik:* W. OTT. *Early Swiss Mortality Tables:* W. BICKEL. *Grundlagen der Schweizerischen Volkssterbetafeln* 1931/41 *und* 1939/41: W. WEGMÜLLER. *Nouvelles tables suisses de mortalité:* É. MARCHAND. *The Calculation of Reserves by Means of Samples:* E. ZWINGGI. *Emploi d'une méthode statistique pour étudier les dépenses d'une famille:* A. WEBER and A. LINDER. *Zur frage des regionalen Vergleichs der Konzentration der Einkommen natürlicher Personen:* W. KULL. *Grenzen der Wirtschaftsstatistik:* H. GORDON. *Möglichkeiten und Grenzen internationaler Zahlenvergleiche in der Industrie- und Gewerbestatistik:* A. SCHWARZ. *Verbrauchsausgaben und Volkseinkommen:* R. ZWINGLI. *Die Veränderung der Produktivitat der schweizerischen Landwirtschaft im Lichte der amtlichen Statistik:* W. BÄGGLI. *Wohnungszählungen in der Schweiz:* F. BACKMANN.

Aussenwirtschaft.

JUNE 1949. *Agrarpolitik und Aussenwirtschaft :* O. FISCHER. *Existenzprobleme der österreichischen Volkswirtschaft :* T. PÜTZ. *Internationale Patent- und Lizenzverständigungen als Hemmnisse des Welthandels :* F. HAUSSMANN.

Zeitschrift für die Gesamte Staatswissenschaft.

VOL. 105, NO. 3. 1949. *Heinrich Freiherr von Stackelberg und sein Beitrag für die Wirtschaftswissenschaft :* H. MÖLLER. *Der symmetrische Aufbau der Kostentheorie :* H. HALLER. *Liquidität und Güterstrom :* O. VEIT. *Kausalität und Funktionalzusammenhang in der Soziologie Max Webers :* P. J. BOUMAN. *Die Wandlung der soziallwissenschaftlichen Aufgaben :* ELISABETH LIEFMANN-KEIL. *Einige Gedanken über die Zukunft der deutschen Rechtswissenschaft :* G. STERNER. *Ernst Zitelmann :* H. DÖLLE.

Société de Banque Suisse.

BULLETIN NO. 3, 1949. *L'évolution du commerce extérieur de la Suisse.*

Wirtschaftsdienst.

JUNE 1949. *Deutschland im weltwirtschaftlichen Kräftespiel :* K. SCHILLER. *Die amtliche Berichterstattung über die Aussenwirtschaft :* C. KAPFERER. *Neue Elemente des maritimen Weltverkehrs :* G. A. THEEL. *Österreichs Stellung im Europatransit :* K. WESSELY.

Europa Archiv.

VOL. IV, NO. 13. *Politische Formen des europaïschen Aktivismus. Die surrealistische Bewegung. Italiens Weg aus dem Kriege (1943–1945). Zentralismus und Föderalismus in der amerikanischen Finanzverfassung. Die Gewerkschaftsbewegung in Europa und den Vereinigten Staaten. Vorschläge zur Lösung der deutschen Frage auf der Pariser Aussenminister-konferenz. Resolution der Internationalen Sozialistischen Konferenz in Baarn (Niederlande) zur Frage der Einheit Europas.*

VOL. IV, NO. 14. *Die Politik und die Welt des Geistes. Die verfassungsändernde Gesetzgebung des Obersten Sowjets der U.d.S.S.R. und die Entwicklung der Ministerien 1947–1948. Die Konvention zur Verhütung und Bekämpfung des Gruppenmords. Die Wirtschaftskommission der Vereinten Nationen und die Wirtschaftseinheit Europas. Die amerikanische Wirtschaftspolitik und der Konjunkturrückgang, 1. Teil.*

VOL. IV, NO. 15. *Ein kulturwirtschaftlicher Marshall-Plan ? Der Buchhandel in der Entscheidung. Italiens Weg aus dem Kriege (1943–1945). Die verfassungsändernde Gesetzgebung des Obersten Sowjets der U.d.S.S.R. und die Entwicklung der Ministerien 1947–1949. Die Wirtschaftskommission der Vereinten Nationen und die Wirtschaftseinheit Europas. Die amerikanische Wirtschaftspolitik und der Konjunkturrückgang, Part 2.*

VOL. IV, NO. 16. *Der Gedanke der Planwirtschaft in der nationalökonomischen Diskussion der Gegenwart. Der " Modus vivendi " in Europa. Die drei Zonen der sowjetischen Wehrwirtschaft. Schlussfolgerungen des neunzehnten Jahresberichtes der Bank für Internationalen Zahlungsausgleich.*

Giornale Degli Economisti e Annali di Economia.

MARCH–APRIL 1949. *Nell'anniversario della nascita di Vilfredo Pareto, 15 luglio 1848 – 19 agosto 1923. Terzo fascicolo celebrativo. Contributi di Pareto alla scienza della finanze :* M. FASIANI. *Di taluni massimi d'utilità collettiva :* A. BORDIN. *Le condizioni del massimo collettivo di ofelimità secondo Pareto :* V. DOMINEDÒ. *Pareto statistico :* H. T. DAVIS. *Circolazione delle aristocrazie e ricambio sociale :* G. DE MEO.

MAY–JUNE 1949. *Uniformità nel piano di un produttore :* U. PAPI. *Ulteriori considerazioni su un modello di ciclo economico :* V. MARRAMA. *Siulla misura del grado di monopolio économico di una collettività nazionale :* G. DEMARIA.

Economia Internazionale.

VOL. II, NO. 2. MAY 1949. *L'imposta come strumento di politica economica e sociale :* H. LAUFENBURGER. *La distribuzione dell'imposta e la « legge di Pareto » in una recent indagine teorica :* M. FASIANI. *La teoria matematica dell'impresa :* H. A. D. PREINREICH. *La « legge dei costi comparati » e la dislocazione degli scambi internazionali :* J. WEILLER. *Banco di Roma.*

Review of the Economic Conditions in Italy.

MAY 1949. *Credit Policy and Unemployment in Italy :* C. BRESCIANI TURRONI. *Two Months of Economic Activity in Italy.*

JULY 1949. *Aspects of Italy's Post-War Fiscal Policy :* E. D'ALBERGO.

Italian Economic Survey.

MAY–JUNE 1949. *The Annecy Negotiations.*

Critica Economica.

APRIL 1949. *Sulla comparabilità del potere d'acquisto del salario :* S. SOMOGYI. *Sviluppo delle contraddizioni intrinseche della legge :* C. MARX.

L'Industria.

NO. 1, 1949. *Appunti sull'evoluzione della finanza pubblica :* G. BORGATTA. *Nuovi indirizzi dell'economia keynesiana :* V. MARRAMA. *Fattori che regolano lo sviluppo della produttività del lavoro :* P. J. VERDOORN. *La determinazione del reddito :* F. DI FENIZIO.

NO. 2, 1949. *Lo sviluppo della nuova teoria monetaria :* H. FICK. *Teoria e politica della piena occupazione :* U. SACCHETTI. *Preliminari alla teoria della piena occupazione :* L. FEDERICI. *Considerazioni intorno all'equazione del reddito :* E. D'ELIA. *La statistica del controllo dei prodotti industriali :* S. VIANELLI.

Banca Nazionale del Lavoro Quarterly Review.

APRIL–JUNE 1949. *The Concept of a Dollar Shortage :* T. BALOGH. *Should Sterling be Devalued ? :* T. BALOGH. *The Dilemma of the O.E.E.C.:* G. U. PAPI. *The Valuation of Commodities for Direct Consumption :* C. GINI. *Balance-Sheet of the First Year of the E.R.P. in Italy :* G. COSMO. *Index Numbers of Industrial Production and Capitalisation in Italy :* P. BATTARA.

Moneta e Credito (Rivista trimestrale della Banca Nazionale del Lavoro).

VOL. II, NO. 1, 1949. *Problemi generali :* J. E. MEADE, G. U. PAPI, C. RODANÒ. *Problemi dell' economia italiana :* C. DRAGHI, G. FERRETTI, E. MARASCO, M. MAZZANTINI, P. ONIDA. *Rilevazioni statistiche :* M. IMPERATORI, G. PARRAVICINI. *Problemi giuridici :* M. S. GIANNINI.

Skandinaviska Banken Aktiebolag.

JULY 1949. *Switzerland's Unique Position :* P. JACOBSSON. *The New State Bank. Sweden's Balance of Payments :* E. WESTERLIND. *Changes in the Structure of Industry :* V. KÄLLSTRÖM. *The Economic Situation during the Second Quarter of 1949.*

Index.

JUNE 1949. *The Economic Situation. The Distribution of Sweden's Foreign Trade by Commodity Groups. The Situation and Prospects of the Swedish Pulp Industry. The Question of a State Commercial Bank in Sweden. Industrial Classification of the Lendings of the Svenska Handelsbanken.*

Økonomi og Politik.

APRIL–JUNE 1949. *Jugoslavien under Tito-styret :* E. RESKE-NIELSEN. *Valutakurser og dollarknaphed :* P. NØRREGAARD RASMUSSEM. *Den internationale økonomiske situation : Den økonomiske udvikling i Danmark.*

Økonomi.

DECEMBER 1948. *Keynes-laeren og dens betydning for den aktuelle økonomiske politikk :* E. PETERSEN.

Ekonomiska Samfundets Tidskrift.

VOL. II, NO. 2. 1949. *Kampen mot inflationen i Förenta Staterna :* H. E. PIPPING. *Om formen för statlig affärsdrift :* E. TÖRNQVIST.

Revue de la Faculté des Sciences Économiques de l'Université d'Istanbul.

APRIL 1948. *Nouvelles tendances de la politique financière :* F. NEUMARK. *Die Einkommensbesteuerung in den Niederlanden :* J. H. SMEETS.

Statistical Bulletin of Israel.

VOL. 1, NO. 1. JULY 1949. *Current Notes. Diagrams. Tables : Meteorology, demography, migration, health, agriculture and fisheries, building, transportation and communication, foreign trade, prices, finance, labour, education, judiciary.*

Magyar-Szovjet Közgazdasági Szemle (Hungarian and Russian text).

JUNE 1949. *The Hungarian Exhibition in Moscow :* I. VAJDA. *Questions of Political Economy in the " Short History of the Communist Party of the Soviet Union (Bolsheviks) " :* P. BJELOV. *Characteristics of Soviet Financial Accounting :* V. DJACSENKO. *Plan Preparation :* J. JOFFE. *U.S. Interference with European Trade :* A. SZÉKELY. *Questions of Trade Union Rights :* V. RASZTORGUJEV.

Gazdaság (Hungarian text).

VOL. IV, NO. 11. JUNE 1949. *Socialist Labour Competition :* A. KÖVES. *Competition in trade :* J. GONDOS. *Workers' Competition in the Soviet Union :* B. LAKATOS. *Planning Methods in Farm Labour :* N. SÁSDI. *Planned Stocks of Finished Commodities in Manufacturing Industry :* G. ELEK. *Problems of Uncontrolled Production in our Planned Economy :* M. SPIRÓ.

VOL. IV, NO. 12. JUNE 1949. *Industrial training :* I. KOSSA. *After Our Labour Competition Conference :* F. BAJAI. *The Role of Labour Competition in our Banks :* Z. KOTÁNYI. *Labour Competitions in State Undertakings for Foreign Trade :* S. LORSCHY. *Estimates, Independent Business Accounts and Planned Bookkeeping :* J. ZALA. *Business Accounting :* G. RÉCZEY.

VOL. IV, NO. 13. JULY 1949. *In Anticipation of the Second World Trade Union Congress :* A. KÖVES. *The Velocity of the Turnover Cycle of Working Capital in Soviet Enterprises :* M. L. *The Ethics of Socialist Commerce :* A. FAY. *The Organisation of Teaching Economics in Commercial Secondary Schools :* L. SIMON. *Cost Accounting within the Enterprise :* V. ÁBELOVSZKI. *Planned Agricultural Prices and Manufacturing Industry :* I. B.

Voprosy Ekonomiki (Russian text).

NO. 4. 1949. *The Struggle for Speeding the Turnover Cycle of Working Capital :* V. DIACHENKO. *State Labour Reserves :* E. MOKHOVA. *Against Bourgeois Objectivism and Formalism in Statistics :* T. KOZLOV. *Italy in the Grip of the Marshall Plan :* P. LISOVSKII.

NO. 5. 1949. *The Role of Electricity in the " Plan for the Transformation of Nature " :* S. MATSKEVICH. *Problems of Economic Indices :* I. MALYI. *The History of the Kizel Coal Basin :* A. ZVORYKIN. *The Lowering of the Real Earnings of the U.S. Working Class after the Second World War :* M. SMIT. *Labour the True Prop of Imperialism :* I. DVORKIN.

Planovoe Khoziaistvo (Russian text).

NO. 3. 1949. *A General Increase in Livestock : the Central Problem of the Expansion of Agriculture :* S. DEMIDOV. *Problems of Soviet Trade in an Expanding Economy :* V. PAVLYUKOV. *Average Progressive Norms, the*

Basis of Planned Production : N. FEDOMOV. *Mechanisation in the Timber Industry* : I. SUDNITSYN. *New Techniques and their Statistical Treatment* : L. VOLODARSKI. *U.S. Monopoly Capitalists, Inciters to a New War* : M. RUBINSTEIN.

Gospodarka Planowa (Polish text).

MAY 1949. *The Balance of the National Economy* : B. MINC. *Investment in Industry in 1949* : C. BABIŃSKI. *Building in the 1949 Investment Plan* : S. POTAPCZUK. *Planned Supplies in Industrial Production* : Z. DEUTSCHMAN. *The Electro-technical Industry in the Six Year Plan* : T. ZARNECKI. *Forestry in the Plan* : H. KLIMEK. *The Real Significance of Soviet Discussions on Statistics* : PROF. A. WERYHA. *The Three Year Plan for Livestock Breeding in the U.S.S.R.* : J. KOWAL. *Rouble Control, the Credit System and the Budget in the Soviet Union* : L. MAJZENBERG. *The Basic Principles of Agricultural Planning in the U.S.S.R.* : A. GAPONENKO.

JUNE–JULY 1949. *A New Stage in the Operation of the Six Year Plan ; Fixed Prices* : B. MINC. *The Role of Trade Unions in the Realisation of the Economic Plan* : DR. C. KULIKOWSKI. *The Pattern of the Industrial Financial Plan for 1950* : L. ZELCZAK. *The Proper Preparation of Industrial Statistics* : J. KANTOR. *Problems of the Maritime Plan* : J. PASZKOWICZ. *Planning in the Railways* : B. CYWIŃSKI. *Roads in the Economic Plan* : A. GAJKOWICZ. *A Tentative Estimate of Fodder Supplies in the Six Year Plan Period* : M. MARKIJANOWICZ. *Soviet Experience in Quality Control* : P. JEWSJEJEW. *The Essentials of Socialist Planning in Hungary* : A. STAM.

AUGUST 1949. *Problems in the Plan for the Construction Industry* : M. MATACHOWSKI. *The Role and Importance of Planning in the Turnover of Goods* : W. JAMPEL. *Financial Planning Methods* : A. KAWCZYŃSKI. *Contribution of the Press to the Six Year Plan* : A. KADUSZKIEWICZ. *The Coal Industry and the Plan* : L. SALOMAN. *The Agricultural Industry in the Plan* : Z. KOKELI. *International Trade Between Democratic Peoples* : P. CZERWINSKI. *The Role of Science and Technology in the Transition from Socialism to Communism* : A. ARAKELIAN. *The Planning Organisation in the Soviet Union* : D. WALENTEJ. *Plan Fulfilment in the Soviet Union* : I. JEWIENKO.

Wiadomości Nazodowego Banku Polskiego (Polish text).

NO. 5. MAY 1949. *The Swiss Monetary Situation* : DR. S. PERCZYŃSKI. *The Finance of Soviet Enterprises* : B. BLASS. *The Planning, Finance and Control of Local Communal Economies* : DR. K. NIEMSKI. *The Protection of Property and Persons in Poland* : J. URBAN.

NEW BOOKS.[1]

British.

ARNOT (R. PAGE). The Miners. A history of the Miners' Federation of Great Britain 1889–1910. London: Allen and Unwin, 1949. 9″. Pp. 409. 21s.

[To be reviewed.]

BENNETT (L. G.). Financial Results on 32 Market Garden Holdings in the Southern Province, 1947–1948. University of Reading: Department of Agricultural Economics, 1949. 8″. Pp. 3.

[Roneo-ed tables showing the financial results per acre of a sample of market-garden holdings, so designed as to enable other growers to compare their costs with the average of the sample.]

[1] See postscript on prices, p. 670.

British Tourist and Holidays Board. Second Annual Report 1948–49. London: The British Tourist and Holidays Board, 1949. 9½″. Pp. 14.

[This report by the British Tourist and Holidays Board was prepared at the request of the Board of Trade. It describes what has been done to increase invisible earnings from tourists and to provide help to hotels, catering establishments and the like in improving facilities for overseas visitors.]

British Tourist and Holidays Board. Second Annual Report of the Home Holidays Division, April 1st 1948 to March 31st 1949. London: The British Tourist and Holidays Board, 1949. 8½″. Pp. 48.

[A survey of holiday accommodation, the effects of staggering, of the growth of demand and the measures which might be taken to provide more accommodation, and the standards required and the costs of holidays of different kinds.]

Cleja (S. M.). The Euro: a new European gold currency. Translated from the French by Eugenie R. Lorie. London: Staples Press, 1949. 8½″. Pp. 55. 3*s*. 6*d*.

[The author is convinced that " an economic federation of the nations of Western Europe will begin to become a reality, outside of all ideas of super-parliaments and super-governments, when all the nations composing it have the same currency convertible into gold and circulating freely." The Euro will correspond to 500 milligrams of fine gold. It will be issued by a European Emission Bank, which will replace the national issuing banks. It will be guaranteed, not only by the participating countries, but also by the United States. The author's solution would appear to depend on political assumptions, which, once granted, would permit equal success with many alternative methods.]

Cook (R. S.). Costs and Returns from Milk Production in the Southern Province in 1947–48. University of Reading: Department of Agricultural Economics, 1949. 10½″. Pp. 24. 2*s*.

[A roneo-ed report of costs and returns from producing milk on a sample of sixty farms in Berkshire, Buckinghamshire, Hampshire, Middlesex, Northamptonshire, Oxfordshire and Warwickshire. The costs are analysed in great detail and are so presented that a farmer should be able (and is given space in the tables) to compare his own costs under a wide variety of heads with the averages here shown and to fit his costs in the distributions obtained from the sample.]

Curtis-Bennett (Sir Noel). The Food of the People. The history of industrial feeding. London: Faber and Faber, 1949. 8½″. Pp. 320. 16*s*.

[This book provides a great deal of rather disjointed information on communal feeding from the Middle Ages onwards. In more modern times it concentrates on industrial feeding. The greater part of the book is made up of quotations, and the information in it and its presentation are not likely to appeal to economists.]

Durbin (E. F. M.). Problems of Economic Planning. Papers on planning and economics. London: Routledge and Kegan Paul, 1949. 8½″. Pp. x + 214. 15*s*.

[To be reviewed.]

Eaton (J.). Political Economy. A Marxist textbook. London: Lawrence and Wishart, 1949. 8½″. Pp. 235. 12*s*. 6*d*.

[This book is described by Emile Burns in a foreword as a text-book of Marxist political economy, presented as far as possible in the setting of British development and experience. Non-Marxist views on the principal questions are dealt with, so far as the limits of a text-book allow. It is the result of two years' work by a group of Marxist economists, who have had the help of historians and scientists, as well as other economists. While it is, in this sense, a collective work, John Eaton, as secretary of the group, carried the main responsibility and he is the author of the final text. The aim of the book is described as being " to show the law of motion of capitalist society." It is argued that political economy teaches not only the causes of social change, but also what men must do to bring them about. Thus it forms the very foundation of the world outlook of Marxism.

This is, within its assumptions, an abler, more readable and more coherent account of these theories than most available alternatives.]

FRANKEL (S. H.). The Concept of Colonization. Oxford: Clarendon Press, 1949. 9″. Pp. 24. 2*s*.

[In his Inaugural Lecture, Prof. Frankel, after surveying the progress of Colonial Economics since Herman Merivale lectured on this subject in Oxford in 1839, pleads for a new assessment of the problems of development of the backward regions of the world.]

FUSSELL (G. E.). The English Rural Labourer. His home, furniture, clothing and food from Tudor to Victorian times. London: Batchworth Press, 1949. 8½″. Pp. viii + 160. 12*s*. 6*d*.

[To be reviewed.]

GOULD (R. T.). (Edited by D. W. HOOPER.) The Story of the Typewriter from the eighteenth to the twentieth centuries. London: Office Control and Management, 1949. 8″. Pp. 48. 2*s*. 6*d*.

[This fascinating pamphlet, originally written by the late Lieutenant-Commander Gould and prepared for publication by Mr. D. W. Hooper, gives a detailed and fully illustrated description of the technical development of the typewriter from its early beginnings around 1830, through the major developments of the 1870's and 80's, down to the modern forms which began to become stereotyped in the first decade of this century. No economic history of the nineteenth and twentieth centuries can be complete without some reference to the development and widespread use of this essential tool of modern commerce and modern government. The product of Lieutenant-Commander Gould's hobby looks like becoming a standard footnote to every economic history.]

GUPTA (B. B. DAS). A Short Economic Survey of Ceylon. Colombo: Associated Newspapers of Ceylon Ltd., 1949. 8½″. Pp. 94. White Paper Rs. 3.50. Newsprint Rs. 3.00.

[This Survey was originally prepared for Economic Conversion of Asia and the Far East. It includes both estimates of the National Income and resources of Ceylon and a careful discussion of the economic problems that are confronting the island. Of these, the principal is a deficit in the overseas balance, mainly explained by the much heavier rise in the prices of imported foodstuffs than of Ceylon's normal exports.]

HALL (F. G.). The Bank of Ireland, 1783–1946. Dublin: Hodges Figgis (Oxford: Basil Blackwell), 1949. 10½″. Pp. x + 513 + illustrations. 63*s*.

[To be reviewed.]

HOFF (T. J. B.). Economic Calculation in the Socialist Society. London: Hodge, 1949. 8½″. Pp. 264. 21*s*.

[To be reviewed.]

I.E.S. Code for the Lighting of Building Interiors. London: Illuminating Engineering Society, 1949. 8½″. Pp. 28. 2*s*. 6*d*.

[The code, prepared by the Illuminating Engineering Society, deals with standards for both natural and artificial lighting. It sets out a schedule of recommended values of illumination for a large variety of purposes, including different industrial processes, offices, shops, public buildings, schools, hotels, hospitals, homes and sports.]

The Incorporated Association of Rating and Valuation Officers. Year Book 1949. London: Incorporated Association of Rating and Valuation Officers, 1949. 7″. Pp. 87.

[This contains a list of the names and addresses of all members of the Association.]

Industrial Australia. A study of recent expansion. Melbourne and London: Union Bank of Australia, 1949. 8½″. Pp. 78.

[This booklet is designed to set out, for the benefit of anyone wishing to set up a factory in Australia or to acquire an interest in an Australian concern,

comprehensive information about the industrial expansion of Australia and the present position of its main industries, agriculture, raw materials, manpower supplies and general economic environment.]

The Institute of Chartered Accountants in England and Wales. List of Members, 1949. London: Institute of Chartered Accountants, 1949. 8″. Pp. 958.

[This contains the usual list and addresses of members and firms, the officers of the various district societies and the membership of the main committees of the Council.]

JEREMIAH (K.). A Full Life in the Country. The Sudbury and District Survey and Plan. London: Batsford, 1949. 10″. Pp. 86. 12*s*. 6*d*.

[To be reviewed.]

JERVIS (F. R. J.). Price Control. Government intervention or the free market? London: Hutchinson's Scientific and Technical Publications, 1949. 7½″. Pp. 224. 12*s*. 6*d*.

[To be reviewed.]

JONES (D. CARADOG). Social Surveys. London: Hutchinson's University Library, 1949. 7″. Pp. 232. 7*s*. 6*d*.

[To be reviewed.]

KEAST (H.). Guide to National Insurance. Leigh-on-Sea: Thames Bank Publishing Co., 1949. 8½″. Pp. 83. 2*s*.

[A simplified guide to the National Insurance Scheme, the Industrial Injuries Scheme and to the obligations of employers, workers and the State under them.]

KUCZYNSKI (R. R.). A Demographic Survey of the British Colonial Empire. Vol. II. South Africa High Commission Territories, East Africa, Mauritius, Seychelles. London: Oxford University Press (Royal Institute of International Affairs), 1949. 9½″. Pp. x + 983. 75*s*.

[To be reviewed.]

KUMARAPPA (J. C.). Swaraj for the Masses. Bombay: Hind Kitabs, 1948. 7½″. Pp. 104.

[The author of this small book was brought up as an Indian Christian. He took a degree in economics in Columbia University, and spent a number of years as an accountant after further training in London. In his early days a staunch loyalist, after a period of further studies in America and research into problems of India's finance he came back and threw up everything to join Gandhi and became a foremost expert on Gandhian economics. The book is composed from reprints of newspaper articles. Like all good journalism they are provocative, contentious, and irritating, but often they go to the root of things. The thesis which runs right through them is that the wealth of India is built on the agriculture of its villages. What contributes to their wealth contributes to the wealth of India. What serves the private interest of a section must be suspected and that section must foot the bill. Misdirected research, measures to improve tobacco, thick-rind sugar-cane, long-staple cotton, all ministering to industrial needs, are anathema.]

LEWIS (R.) and MAUDE (A.). The English Middle Classes. London: Phoenix House Ltd., 1949. 8½″. Pp. 320. 15*s*.

[To be reviewed.]

LEWIS (W. A.). Economic Survey, 1919–1939. London: Allen and Unwin, 1949. 8½″. Pp. 221. 15*s*.

[To be reviewed.]

LINDSAY (J.). Marxism and Contemporary Science. London: Dennis Dobson, 1949. 8½″. Pp. 261. 18*s*.

[To be reviewed.]

LYONS (A. M.) and MAGNUS (S. W.). Advertisement Control. Leigh-on-Sea: Thames Bank Publishing Co., 1949. 8½″. Pp. xxv + 197. 12*s*. 6*d*.

[The Town and Country Planning Act, 1947, contains various provisions which affect advertisers and sets up a wholly new system of controls. This volume sets out the main features of the regulations. While the legislation is too recent for it to be possible to estimate accurately their effects in practice, a large number of applications have been made and many appeals have been determined.]

Management for Production. London: British Institute of Management, 1949. 9″. Pp. 47. 2*s*. 6*d*.

[A short introduction to the problems of production management designed for the practical man. It argues that management is a complex activity that must be treated as a whole; its basis may be said to be "measurement and morale." The booklet begins by showing how measurement can reveal weaknesses. It goes on to process planning, and shows how certain time-consuming processes can be avoided or simplified. Shop lay-out is next discussed; then motion study, production planning and control, and care of plant. Finally morals, incentive payments, control of quality and control of costs. For its purpose, the booklet is well planned, and it indicates the literature in which each subject can be pursued farther.]

MAULDON (F. R. E.). The Use and Abuse of Statistics, with special reference to Australian Economic and Social Statistics in Peace and War. Third edition. Crawley: University Bookshop, 1949. 8″. Pp. vi + 129. 8*s*. 6*d*.

[This is a third, revised, edition of a very useful little text-book which starts with the virtues and vices of statistics and the tools of the statistician and then proceeds to apply them to the economic statistics of Australia. The original version was based on a series of short wireless talks. The present version retains something of the original form. It is broken into short sections. It is of the level of popular presentation. It is lively and concise. These are virtues seldom found in books on statistics.]

MORRISON (HERBERT) (Ed.). Socialism the British Way. London: Essential Books Ltd., 1948. 7″. Pp. 345. 10*s*. 6*d*.

[In this series of essays a number of leading socialists have set out the background, purpose and consequences of the decisions on the main lines of policy made by the Labour Government during the past three years. Mr. Herbert Morrison blesses the book in a brief foreword. The first essay, by Evan Durbin, reminds us the loss that we have suffered by his death. He writes on the economic problems that have faced the government and stresses four: economic demobilisation; the achievement of a right balance between the various branches of economic activity and the removal of bottlenecks; the control of inflation; the balance of payments. He sets out the methods and the results. It is here, alas, that one would have liked to see revision to take full account of later events; but he faces the problem, as he saw them, squarely. Prof. G. D. H. Cole writes on the socialisation programme for industry. After a brief record of what has been done he proceeds to the thorny problems of efficiency and trading, labour incentives, and the problems of management. Mr. Diamond deals with the private sector of industry and discusses the profit motive, competition and monopoly and the promotion of efficiency. Mrs. Cole describes the developments of the social services and personal life. James Callaghan writes on the approach to social equality. Ben Roberts discusses the position of trade unions in the changing economy. Frank Hardie writes on Socialism and parliament, Stephen Taylor on socialism and public opinion, Rita Hinden on the Labour Government and the empire. Harold Nicolson contributes an essay on the foreign policy. Finally Michael Young sums up on the problems ahead, with the main emphasis on the balance of payments and the consequences for Britain of all the structural changes that are taking place all round the world. But he does not overlook the problems at home—the unwisdom of too rapid an extension of nationalisation, the need, therefore, for a mixed economy, and the problems of making it work, with appropriate rewards and penalties. He has the courage to say that higher efficiency deserves, and should receive, higher profits. But he asks himself what can be the driving force of a mixed economy. He finds the solution in the extension of democracy, which, to his mind, is synonymous with the extension of opportunity to contribute to society.]

MUNSHI (M. C.). Industrial Profits in India (1936–1944). New Delhi: Federation of Indian Chambers of Commerce and Industry, 1948. 8½″. Pp. iii + 326. Rs. 15/-.

[This monograph analyses Indian profits over the years 1936–44, both in total and in seven individual industries: cotton textiles, sugar, iron and steel, paper, cement, jute mills and coal mining. It is packed with tables, diagrams and statistical material generally. A large part of the book is (very rightly) concerned with the methodological problems of measurement. The results show very considerable increases of gross and net profits in total. Net profits in 1944 were more than seven times those of 1938 in cotton textiles, and about four times in jute. There were declines in iron and steel and in cement and a very modest increase in coal. In relation to the value of sales the increase in cotton textiles was about three times. In most other cases it was relatively small. Dividends, though in some cases appreciably larger, were a smaller proportion of net profits. Contributions to reserves increased immensely (in cotton, nineteen times and in jute even more). The greatest increase was naturally in provision for taxation, which by 1944 absorbed nearly three quarters of the gross profits in cotton and around two thirds in several other cases.]

MURANJAN (S. K.). Shadows of Hyper-Inflation. Bombay: Hind Kitabs, 1949. 9″. Pp. 59. Rs. 2.

[A strong warning against the serious dangers of inflation and financial collapse if budget deficits and investment continue at present levels without measures to offset them effectively by increased saving.]

NAG (D. S.). A Study of Economic Plans for India. Bombay: Hind Kitabs, 1949. 7½″. Pp. ix + 177. Rs. 5–8.

[We now have so many plans for India that a guide to them, their similarities and their differences is necessary. We start with the National Planning Committee of 1938. We proceed to the Bombay Plan, the Bureaucracy's Plan, the People's Plan, the Gandhian Plan, the Plan Advisory Board and finally the economic policy of the Interim Government. These descriptive chapters are followed by what is in effect the kernel of the book—a hard-headed discussion in four chapters of the essentials of any economic policy in India and the functions of planning in relation to it.]

The National Institute of Economic and Social Research. Seventh annual report 1948. London: National Institute of Economic and Social Research, 1949. 8½″. Pp. 32.

[This annual report for 1948 of the National Institute of Economic and Social Research contains a record of the research in progress and of the recent publications of the Institute. An introduction discusses the new setting of economic and social research. It emphasises the need for closer integration between economics and the contiguous social sciences. At the same time it stresses the need for statistical research in the field of applied economics to march in step with fundamental research in economic theory.]

NOGARO (B.). A Short Treatise on Money and Monetary Systems. London: Staples Press, 1949. 8½″. Pp. 214. 17*s*. 6*d*.

[To be reviewed.]

The Nuffield Foundation. Fourth Report. Oxford: University Press, 1949. 8½″. Pp. 127.

[This Report surveys the work of the first quinquennium of the Foundation and sets out the principal aims for the next quinquennium. "The foundation," it states, "will be prepared to assist work of individuals or groups of workers of exceptional ability or promise in any branch of the medical, natural or social sciences; but it hopes to devote most attention to the advancement of biological and sociological studies (using the terms 'biological' and 'sociological' in their widest sense) which, nearly or distantly, may contribute in some way to the promotion of human health and welfare" . . . "In the social sciences the Foundation is specially interested in bringing the non-economic studies—such as social anthropology or sociology in the narrow technical sense—up to the level of the better-developed subjects like economics, and in increasing the integration of the various specialisms. In so far as it is possible the Foundation hopes to help studies of the normal functioning of social arrangements."]

SANDSTRÖM (K. G. A.). The Double Taxation Convention between Sweden and the United Kingdom of Great Britain and Northern Ireland. London: Swedish Chamber of Commerce for the U.K., 1949. 8″. Pp. 20.

[A brief but detailed account and explanation of the main principles of the Double Taxation Convention between Sweden and the United Kingdom.]

SMITH (SIR EWART) and BEECHING (R.). Measurement of the Effectiveness of the Productive Unit. London: British Institute of Management, 1949. 9″. Pp. 35. 2*s.* 6*d.*

[This pamphlet by Sir Ewart Smith and Dr. R. Beeching considers the alternative ways in which the efficiency of a productive unit can be measured. The paper itself, quite naturally and inevitably, becomes concerned with many of the familiar problems of index numbers, their validity and their basic assumptions. Certain methods based on revaluation of output at base-year prices are advocated. Certain newer methods are also suggested and examined: these are essentially the use of physical measurements of product in elementary operating units, together with a measurement of imput of resources obtained by reducing capital equipment, services and raw materials into manpower equivalents, all combined to give an overall index. The pamphlet includes examples of all the methods suggested. There is also a record of the discussion of the Paper at a Meeting of the Institute.]

SOVANI (N. V.). Post-war Inflation in India—a survey. Poona: Gokhale Institute of Politics and Economics, 1949. 9½″. Pp. xiv + 94. 7*s.* 6*d.*

[This was originally written as an introduction to two Reports of the Commodity Prices Board (Publication No. 20 of the Gokhale Institute). When it outgrew the appropriate scale for that it was given a separate identity of its own. This study is mainly concerned with events and causes of inflation between the end of the War and mid-1948. It presents all the available statistical material with great clarity and sets it against the monetary and other economic policies of the period. Attached to the study by Mr. Sovani is a memorandum by Dr. D. R. Gadgil on Exchange Parities and he also contributes a very interesting foreword which sums up the main lessons that may be learned from Mr. Sovani's study. There can be little doubt that persistent deficits of the public accounts have been the main contributors to the sharp post-war rise of prices (from about 300 in August, 1947, to about 380 a year later; August, 1939 = 100), and that these have been aggravated by premature decontrol of agricultural prices.]

SPROTT (W. J. H.). Sociology. London: Hutchinson's University Library, 1949. 7″. 192. 7*s.* 6*d.*

[To be reviewed.]

STIGLER (G. J.). Five Lectures on Economic Problems. London: Longmans Green (London School of Economics), 1949. 9″. Pp. 65. 7*s.* 6*d.*

[To be reviewed.]

Survey of Holiday Accommodation in Great Britain. London: British Tourist and Holidays Board, 1949. 9½″. Pp. 57. 5*s.*

[A report drawn up for the Ministry of Town and Country Planning by a special Home Holidays Committees. It breaks up the country into a series of regions and attempts, taking account of present trends in the demand for accommodation, to compare estimates of demand with estimates of available supplies of accommodation, and thus deduce a present and prospective future deficit of accommodation to be met by new building. The statistical adventure is, it need scarcely be said, extremely perilous, but it may possibly, if the margins of error are appreciated, give some indication of the orders of magnitude.]

Trustees Savings Banks Year Book. Fakenham: Wyman (Trustee Savings Banks Association), 1949. 7″. Pp. 144.

[In addition to the customary records of branches and of area and local officers, there are useful tables of statistics of savings. During 1948 the total funds of the Trustee Savings Banks rose from approximately £832 million to approximately £900 million.]

WHILLANS (G.). Whillans's Tax Tables 1949–50. London: Butterworth, 1949. 9½″. 3*s.* 6*d.*

[A cardboard folder of tax tables.]

YEABSLEY (R. E.). Management's Requirements of the Accounting System. London: British Institute of Management 1949. 9½″. Pp. 27. 2*s.* 6*d.*

[A paper by Mr. R. E. Yeabsley, Accountant advisor to the Board of Trade, which emphasises that the main requirement from the accounting system is service: financial control is but one of the techniques employed in carrying out the functions of management. But it must be so organised as to provide all concerned with the necessary information, with clarity, certainty and brevity. The pamphlet contains also a record of the discussion of the paper at the Institute.]

American.[1]

BROWNE (H. J.). The Catholic Church and the Knights of Labor. Washington D.C.: Catholic University of America Press, 1949. 9″. Pp. xvi + 415.

[A Ph.D. Thesis of the Catholic University of America.]

CARSKADON (T. R.) and MODLEY (R.). U.S.A. Measure of a Nation. New York: Macmillan Company, 1949. 11″. Pp. 101.

[This attractive book is described as "a graphic representation of America's needs and resources." It is a fine example of American ingenuity in presenting inherently difficult ideas in the form in which they can be readily assimilated. The developments of the past century are set out for all to see, and for many to envy: the halving of working hours; the twenty-fold increase of the national income; the four-fold growth of population, and the shares of immigration and national increase in it; the changing pattern of expenditure. There are many figures here that are of great interest as a basis of comparison: the estimated expenditure of $8 billion on medical services and $5½ billion on education in 1950, both expected to increase considerably in the next decade. But to a European by far the most impressive picture shows the changes in the composition of exports and imports since 1821: the huge decline of manufactured imports, from nearly 60% of the whole to about 15%; the growth of imports of materials, the decline of material exports and the vast growth of manufactured exports. The problems of Europe were never more simply set out.]

The Drive for a Controlled Economy via Pale Pink Pills. Washington D.C.: Chamber of Commerce of the United States, 1949. 9″. Pp. 23. 25 cents.

[The matter under discussion, which is not wholly apparent from the title, is the Spence Bill which embodies proposals for legislation to implement the President's control programme. The title of the Bill describes its objectives: "It is the purpose of this Act to utilise the powers and resources of the Federal Government to assist in overcoming certain adverse conditions. . . . These adverse conditions are: (1) critical shortages and maldistribution of some essential materials and facilities and inadequacies of some productive facilities; (2) pronounced and continued increases in some price levels or in the prices of some vital commodities, which create unbalances. . . ." The pamphlet argues that such corrective measures are wholly unnecessary.]

DUNLOP (J. T.). Collective Bargaining, principles and cases. Chicago: Richard Irwin, 1949. 9″. Pp. xi + 433. $5.00.

[To be reviewed.]

EDWARDS (C. D.). Maintaining Competition. Requisites of a Governmental Policy. New York and London: McGraw-Hill, 1949. 9″. Pp. xi + 337. 22*s.* 6*d.*

[To be reviewed.]

[1] See postscript on prices, p. 670.

ELCHIBEGOFF (I. M.). United States International Timber Trade in the Pacific Area. Stanford University Press (London: Geoffrey Cumberlege), 1949. 10″. Pp. xvii + 302. $7.50.

[To be reviewed.]

FABRICANT (S.). The Rising Trend of Government Employment. Occasional Paper 29. New York: National Bureau of Economic Research, 1949. 9″. Pp. 30.

[In 1900 one out of 24 workers was on a government payroll; in 1920 one out of 15; in 1940, one out of 11; in 1948 one out of 8 or 9. Over the period of nearly half a century, the proportion of all government workers who are engaged in education has fallen greatly; the greatest relative increases are in the Armed Forces and in federal civilian employment. Within the latter category it would appear that "welfare" has multiplied very greatly. Dr. Fabricant would not ascribe the increases wholly, or even predominantly, to the New Deal. While it stimulated a number of activities, the upward trend originated in earlier decades.]

FULLER (D. R.). Government Financing of Private Enterprise. Stanford University Press (London: Geoffrey Cumberlege), 1949. 9″. Pp. 206. 16*s.*

[The author appraises the war-time and peace-time experiments of using government financing to fill gaps in private financing. In particular, he analyses the work of the Reconstruction Finance Corporation.]

HARPER (F. A.). Liberty, a path to its Recovery. Irvington-on-Hudson, New York: Foundation for Economic Education, 1949. 9″. Pp. 159. Cloth $1.50; paper $1.0.

[This pamphlet argues that "a high level of economic liberty is a requisite to all other liberties." "Economic liberty is absent to whatever extent a person is prohibited from using his talents and his property to produce and sell (or exchange) anything he desires, at whatever price is agreeable to him and the buyer." In effect, the index of liberty, or rather of its lack, is the proportion of the national income taken by the government of any country, and the fact that 29 cents in every dollar goes to the government measures the United States decline from liberty. The guiding rule should be that grants of special privilege to any person or group should be denied. But "after liberty has been lost beyond a certain point, its recovery is difficult by peaceful means." The first task is to understand the problem, for "the lover of liberty will find ways to be free."]

HARRIS (SEYMOUR E.), (Ed.). Foreign Economic Policy for the United States. Cambridge, Mass.: Harvard University Press (London: Geoffrey Cumberlege), 1948. 9″. Pp. xiii + 490. 32*s.* 6*d.*

[To be reviewed.]

The Hidden Payroll. Non-Wage Labor Costs of Doing Business. Washington, D.C.: Chamber of Commerce of the United States of America, 1949. 11″. Pp. 32. 50 cents.

[A study of the problems of the non-wage payments which now enter into business costs: social security payments, pensions contributions, holiday pay, profit-sharing payments and the like. It is argued that these are not included in wage statistics and that the hourly wage rate no longer truly reflects charges in wage-costs.]

MCCLEARY (D. L.). Parish Accounting. An analysis of Catholic Parish financial reports and accounting systems and two suggested systems. Washington, D.C.: Catholic University of America Press, 1948. 9″. Pp. xii + 173.

[A Ph.D. Thesis of the Catholic University of America.]

MILLS (F. C.) and LONG (C. D.). The Statistical Agencies of the Federal Government. New York: National Bureau of Economic Research, 1949. 9″. Pp. xiv + 201. $2.00.

[This is a report prepared by Dr. Frederick Mills and Dr. Clarence Long, both of the staff of the National Bureau of Economic Research at the request of

Mr. Herbert Hoover, as Chairman of the Commission on the Executive Branch of the Government. It surveys the whole organisation, personnel and operation of the federal statistical system, and makes detailed recommendations for the improvement both of the organisation and of the presentation and publication of the statistics themselves. The scale of federal statistical work is best illustrated by the fact that the total personnel so employed, outside the military departments, was 10,385 at June 1948.]

MOULTON (H. G.). Controlling Factors in Economic Development. Washington D.C.: Brookings Institution, 1949. 8″. Pp. xii + 397. $4.00.

[To be reviewed.]

NATIONAL PLANNING ASSOCIATION. Planning Pamphlet No. 68. A New American Policy in China. By L. Gulick. Washington D.C.: National Planning Association, 1949. 7½″. Pp. vi + 35. 50 cents.

[This pamphlet, after careful examination of the problem, concludes that "there can be no really satisfactory line of action for the immediate future. We [*i.e.*, the U.S.A.] must watch and wait. But in so doing, we must be natural, human and friendly, and ready to act promptly. We have a vital interest in the open door, because we know the danger to freedom of an iron curtain. On the whole it is wiser to anticipate and safe to assume that Chinese communism will become more Chinese and less Russian as China settles down, and discovers that China is fully as concerned as we in the containment of Russian imperialism in Asia. In fact the true national interests of China and ourselves are parallel rather than antithetical."]

RATCLIFF (R. U.). Urban Land Economics. New York and London: McGraw-Hill, 1949. 9″. Pp. xii + 533. 33*s*.

[To be reviewed.]

Readings in the Theory of International Trade. Philadelphia: Blakiston Company, 1949. 8½″. Pp. xvii + 637. 28*s*. 6*d*.

[To be reviewed.]

A Report on Taxation. Louisville: Committee for Kentucky, 1949. 9″. Pp. 31.

[A diagrammatic comparison of the levels of taxation in Kentucky and in the total of other States of America.]

SBAROUNIS (A. J.). Two Reconstructions of Greece. New York: "National Herald," 1949. 10″. Pp. 31.

[An account, by the former Greek Under-Secretary of Finance, of the prosperous Greater Greece of 1920, the difficulties of the period following the Asia Minor disaster, the sacrifices made on the first world war, the reconstruction of the twenties and thirties, and then the further tribulations of the second war and the attempts that are now being made once more to restore the Greek economy. The pamphlet touches on each of these episodes very briefly. In some few cases the general discussion is supported by statistics, but mostly the matter is addressed to a general Greek-reading public for whom the articles here collected and translated were first written and published in the *National Herald*.]

SCHEPS (C.). Accounting for Colleges and Universities. Louisiana State University Press, 1949. 9″. Pp. xix + 385. $6.50.

[This volume sets out, with specimen forms, a complete system of accounting for a university or college. Anyone who, without encumbrance from existing statutory requirements, may be free to set up a new accounting system would do well to study it. Certainly to a layman the accounts of Blank College seem at first glance a model of lucidity. But thinking of the complicated accounts which his own College and University inflict on him, he will probably want to ask questions about the administration of Blank College. Nowhere does any organisation smaller than Blank College appear to have an income of its own. Gone are all the familiar cross payments from one account to another account. Gone are all the minor trust funds, endowments and other sources of special income. Gone, apparently, are all the consequences of personal accounting responsibility for heads of departments. Can it be that the chart of College

organisation in Chapter 2, with its alternative placings of the Business Office under the governing Board and under the President, conceals a reality in which in Blank College the Business Office would in effect be over them all?]

SOMERS (H. M.). Public Finance and National Income. Philadelphia: Blakiston Company, 1949. 8½". Pp. xii + 540.

[To be reviewed.]

SWERLING (B. C.). International Control of Sugar, 1918–41. Stanford University Press (London: Geoffrey Cumberlege), 1949. 9". Pp. viii + 69. 5*s*. 6*d*.

[A most valuable small study of the economics of sugar production and the working of the International Agreements.]

WAITE (W. C.) and CASSADY (R.). The Consumer and the Economic Order. New second edition. New York and London: McGraw-Hill, 1949. 9". Pp. x + 440. 27*s*.

[A second edition of a book which was reviewed in the ECONOMIC JOURNAL of December 1939 by Mr. H. Smith. The new edition follows the same general pattern as the older. A new chapter has been added on retail-price control by legislative process. Apart from this, revisions have mainly taken the form of refining and making clearer the essential argument, with special stress on the importance of competition in protecting the consumer.]

WRIGHT (C. W.). Economic History of the United States. New second edition. New York and London: McGraw-Hill, 1949. 9". Pp. xxl + 941. 36*s*.

[To be reviewed.]

French.

Les Caractères contemporains du Salaire. Paris: Presses Universitaires de France for the Institut de Science Économique Appliquée, 1946. 9". Pp. 160. 240 fr.

[Having distinguished three elements in the determination of wages levels—(*a*) "salaire de rendement" or the relationship of wages to productivity, (*b*) "salaire social" or additions to income made through social security schemes and so on, and (*c*) non-pecuniary elements such as conditions of work, etc.—the authors of this thoroughly readable monograph attempt to make an estimate of the relative importance of these elements in the French wages structure in the last thirty years. It is difficult to summarize the results, partly because the statistics provided refer to different industries and geographical regions and not to wages as a whole and partly because, as the authors discovered, the statistical sources available were not entirely reliable. The outstanding feature of the inter-war period was undoubtedly the growth in the relative importance of "salaire social" which rose from 5% of the "salaire de rendement" in 1920 to more than 15% in 1938. The book concludes with an isolated chapter devoted to a severe criticism of traditional wages theory, but the evidence provided by the statistical investigation is not cited by the prosecution.]

DIETERLEN (P.). Au-delà du Capitalisme. Paris: Presses Universitaires de France, 1946. 9". Pp. 456. 500 fr.

[The first 300 pages of this book cover a wide range of topics around and about the theory of capital. A great deal of the famous literature of capital theory is quoted, but it is difficult to discover what precisely M. Dieterlen's sources of dissatisfaction with capital theory are or what conclusions he wishes to substantiate. The exposition is hindered rather than helped by the most astonishing array of literary quotations. One might expect an apposite quotation or two from Pascal, Montaigne and Anatole France, but one-word quotations from Goethe's *Dichtung und Wahrheit* and Verlain's *L'Art Poétique* spoil the effect of this essentially literary approach to the subject. The remainder of the book, however, entitled "The Transformation of Capitalism", puts forward an adequate discussion of contemporary problems of the evolution of capitalist society.]

FOURASTIÉ (J.). Esquisse d'une théorie générale de l'évolution économique contemporaine. Paris : Presses Universitaires de France, 1947. 8″. Pp. 31. 40 fr.

[This small pamphlet is of unusual interest. M. Fourastié in a 3-page critique of economic methodology pleads for a new attempt to found a general theory of economics. In his opinion the Keynesian system neglects a number of important variables, particularily technical progress, and what variables it accounts for are mostly of a non-measurable character. "But," M. Fourastié argues, "instead of saying like Keynes that 'such a variable is a function of n independent variables' we say that this variable x is a function of an indeterminate number of variables dependent or otherwise. I voluntarily isolate n of these variables $y, z, \ldots\ldots t$ and evaluate at $k\%$ the chances that exist that the others (some of which are totally unknown to me) remain constant or will not affect x during a given period t." This formulation of laws of probability implies that the sole basis of scientific reasoning in economics is statistical verification. M. Fourastié's own 28-page summary of his theory of economic evolution is based on the Colin Clark hypothesis concerning the shift from primary to secondary and tertiary production as an indicator of economic progress. His outline of four basic theories which explain economic evolution and ten derived theories is the merest sketch, but there is much to be said for the author's view that rather than write an elaborate treatise he prefers to sketch in outline his main thesis so that his fellow-economists can more readily exploit its weaknesses. There is a disarming modesty in M. Fourastié's appeal to specialists to correct and criticize "les nombreuses imperfections de cette esquisse." It is hoped that there is an adequate response to M. Fourastié's request for there is much in this pamphlet that is stimulating as well as controversial.]

Salaire et Rendement. Paris : Presses Universitaires de France for the Institut de Science Économique Appliquée, 1947. 9″. Pp. 232. 300 fr.

[This is a companion volume to *Les Caractères Contemporains du Salaire* reviewed above. An attempt is made to analyse the extent of the influence of economic incentives on output and then to examine other influences. There are two features of the work : (*a*) a detailed graphical exposition of the various technical forms of wage-payment such as the Halsey, Taylor, Rowan and Bedeaux systems, and (*b*) the emphasis upon "group" influences on incentives within the social and political milieu. It is concluded that in general the reconciliation of economic and other incentives is brought about by the use of a wage-system which does not try to measure exactly output in terms of effort, but which "donne à l'homme une assez grande liberté d'esprit pour se consacrer à son travail en y puisant des satisfactions profondes."]

SIEGFRIED (A.). Afrique du Sud. Paris : Armand Colin, 1949. 7½″. Pp. 158. 210 fr.

[To be reviewed.]

VINCE (A.). La Doctrine Américaine de la Porte Ouverte en Chine et son Application dans la Politique Internationale. Besançon : Imprimerie Jacques et Demontrond, 1946. 9½″. Pp. 148.

[A short historical account of American relations with the Great Powers in China from the Munroe Doctrine to the First World War including a documentary appendix.]

German.

FISCHER-WOLLPERT (H.). Indien und Pakistan. Oberursel : Europa-Archiv, 1948. 8¼″. Pp. 102.

[A short account of the events which led up to the independence of India and Pakistan and of the problems which remain to be solved—the position of the States, the special problems of Hyderabad and Kashmir, the position of India and Pakistan in relation to the Commonwealth.]

STEPPAT (F.). Iran zwischen den Grossmächten 1941–1948. Eine historisch-politische Studie. Oberursel : Europa-Archiv, 1948. 8″. Pp. 79.

[A short and well-documented account of the political and economic developments of the last few years in Iran.]

WEBER (A.). Marktwirtschaft und Sowjetwirtschaft. Munich: Richard Pflaum, 1949. 9″. Pp. xvi + 471. DM 14.

[To be reviewed.]

Austrian.

MAYER (H.) (Ed.). Hundert Jahre österreichischer Wirtschaftsentwicklung, 1848–1948. Vienna: Springer, 1949. 10″. Pp. xiii + 714. $12.00.

[To be reviewed.]

Swiss.

RUSSENBERGER (H.). Die Auswirkungen der Industrialisierung von Agrarländern auf Industrie-Exportstaaten. St. Gallen: Fehr'sche Buchandlung, 1949. 8″. Pp. 206. S. fr. 12.

[Reviewed in this issue.]

Italian.

EINAUDI (L.). Lezioni di politica sociale. Turin: Einaudi, 1949. 10″. Pp. xviii + 252.

[To be reviewed.]

GIUSTI (U.). Aspetti geografici e sociali delle elezioni politiche italiane del 18 aprile 1948. Rome: Società italiana di Demografia e Statistica, 1949. 10″. Pp. 68. 450 l.

[This detailed analysis of the 1948 election in Italy correlates voting with various economic indices, such as proportion of population engaged in agriculture. It includes a map showing the geographical distribution of the party strengths.]

PIETRI-TONELLI (A. DE). Un sistema di logodiagrammi tipici. Padua: Cedam, 1949. 10″. Pp. 73. 600 l.

PIGOU (A. C.). Il Reddito nazionale. Translated by Andrea Damiano. Milan: L'industria, 1949. 9½″. Pp. 103. 600 l.

[A translation of Prof. Pigou's familiar text-book, *Income*.]

TAGLIACARNE (G.). Demografia dell India. Studio di demografia comparata. Rome: Società italiana di Demografia e Statistica, 1949. 9½″. Pp. 58. 350 l.

[A careful and scholarly demographic study of the population of India, its geographical distribution and urbanisation, the age distribution, the birth and death rates and the effects of changes of these on the rate of growth. At many points the author compares Indian and Italian figures. It is made abundantly clear that the net rate of growth is the resultant of very high birth rates and very high death rates—the latter often two to three times as high as those of Italy at comparable ages. The progress of medicine is reflected in death rates which are falling more rapidly than birth rates; the latter have remained almost constant. In decades of normal health and conditions there is very rapid increase. In decades in which some major famine or pestilence has hit India, population has stood still. It grew 15% between 1931 and 1941; only 1·2% between 1911 and 1921. The devil of Malthus, the author says in conclusion, is here a reality.]

Danish.

ZEUTHEN (F.). Social Sikring. Socialpolitik. Vol. II. Copenhagen: Arnold Busck, 1948. 10″. Pp. xiv + 284. Paper Kr. 14.00. Bound Kr. 17.50.

[To be reviewed.]

Norwegian.

WOLD (K. G.). Levestandardens Økonomi. Oslo: Johan Grundt Tanum, 1949. 9″. Pp. 254.

[To be reviewed.]

Czech.

Czechoslovakia's New Labour Policy. Prague: Orbis, 1949. 8″. Pp. 121.

[A booklet, prepared for the delegates to the 32nd Session of the I.L.O., which describes what Czecho-Slovakia has done to give effect to the various conventions and resolutions of earlier Sessions. It contains a large volume of useful statistical and descriptive information about social conditions in Czecho-Slovakia.]

Egyptian.

National Bank of Egypt 1898–1948. Cairo, 1949. 10½″. Pp. 155. Privately circulated.

[A history of the National Bank of Egypt prepared in honour of its fiftieth anniversary.]

Official.

BRITISH.

HANCOCK (W. K.) and GOWNING (M. M.). History of the Second World War. British War Economy. London: H.M. Stationery Office, 1949. 9½″. Pp. xvii + 583. 21*s*.

[To be reviewed.]

MINISTRY OF INDUSTRY AND SUPPLY. Directorate of Industrial Statistics. Monthly Statistics of the Production of Selected Industries of India. January to March 1949. Simla: Manager Government of India Press, 1949. 9½″. Pp. 8.

[The first of a new series of monthly abstracts of production statistics covering twenty-six main industries. Figures are given for installed capacity, peak production (with an indication of its date), annual production in 1947 and 1948, and production for the first quarter of 1949. For each of the recent periods the ratio of production to capacity is also calculated.]

Private and Public Investment in Canada. Mid-year Survey, 1949. Ottawa: Department of Trade and Commerce, 1949. 14″. Pp. 27.

[This is a sequel to the January appraisals of capital expenditures in 1949, published as *Private and Public Investment in Canada, Outlook 1949* and noted in the ECONOMIC JOURNAL for September 1949.]

Studies in Official Statistics, No. 1. The Interim Index of Industrial Production. London: H.M. Stationery Office, 1949. 8½″. Pp. 52. 1*s*.

[This booklet, first in the series of "Studies in Official Statistics," describes the compilation of this Index of Production by the Central Statistical Office. The aim of the Index is "to provide a general measure of changes in the volume of home-produced output resulting from current economic activity" in the U.K. Part I, which occupies three-quarters of the booklet, describes in detail how this is achieved in the monthly index from 1946. The Index is built up from some 400 production series, corresponding roughly with the industrial groups of the "Standard Industrial Classification." The extent of this correspondence is indicated on p. 11, and the indirect representation of certain industries (described on p. 14) shows how little information is yet available about production in some important fields. Part II gives similar details of the series used and their relative weights, for the comparison between 1946 and pre-war (1935–38) Appendices deal with: (i) the technical formulæ—a useful survey of the formulæ for a quantity

index; (ii) the methods adopted in the Index of Building and Contracting to measure important variations in work done that are not reflected in changes in the number of houses completed; (iii) a similar, though much less detailed description of the Index of Shipbuilding and Shiprepairing; (iv) a list of the series used and their relative weights. The month-to-month movements of this official Index of Production cannot properly be understood without reference to this booklet, which reveals its weaknesses as well as its general strength. There is yet further evidence here of the methods and difficulties of compiling any index number of physical output.]

UNION OF SOUTH AFRICA. Eleventh Annual Report of the Registrar of Building Societies for the Period ended 31st December, 1948. Pretoria: Government Printer, 1949. 13″. Pp. 45. 7*s*. 6*d*.

[A full and detailed survey of the position and assets of Building Societies in South Africa during 1948 with monthly statistics covering in many cases the whole period since the beginning of 1945.]

CZECH.

ŠIMAČEK (R.). Czechoslovak Economy in a Nutshell. Prague: Press Department of the Czechoslovak Ministry of Foreign Trade, 1948. 8″. Pp. 92.

[After a brief general survey, information is provided about particular industries. In most cases it includes an indication of output in recent years, the planned target figures for current output, a list of the national enterprises and the address of the control organisation of the industry.]

POLISH.

Statistical Year Book of Poland 1948. Warsaw: Central Statistical Office, 1949. 8″. Pp. xvi + 254. 400 zlotys.

[A volume in English of statistical material relating to Poland which covers in most cases the period ending in December 1947. It begins with estimates of the national income for 1947. This is followed by a summary of the main indicators of Poland's economic development, with monthly data for 1947 and the first quarter of 1948. Comparable figures are given for 1938, but it is not clear to what area they refer; presumably to the old area of pre-war Poland. One interesting figure included is the percentage of arable land that was sown in each post-war year in the territory acquired after the War. In 1946 it was no more than 38% of all the arable land. By 1948 it had risen to 75%, as compared with about 87% for Poland proper.]

INTERNATIONAL.

Bank for International Settlements. Nineteenth Annual Report. 1st April 1948–31st March 1949. Basle: Bank for International Settlements, 1949. 11½″. Pp. 258.

[Reviewed in this issue.]

The Facts about Refugees. Geneva and London: International Refugee Organization, 1948. 8″. Pp. 24.

[A clear and simple account of the present position of the post-war refugee problem. At the time of writing (about mid-1948) the total of refuges receiving care and maintenance was just under 600,000. Slightly over 500,000 of these were in Germany. About a quarter of the total were Jews. About two thirds belonged by origin to Poland and the Baltic Countries. The first and foremost task is repatriation, but I.R.O. may not force repatriation. Resettlement is a much slower and more difficult task, largely because countries wish to take the young alone and I.R.O. has a duty to resettle whole families. Of 260,000 refugees resettled or repatriated in the previous year, the United Kingdom has taken more than any other single country, and more than a quarter of the whole. The skilled workers and agricultural workers are on the whole easiest to settle. The hardest are the most skilled of all—the specialists with skills—such as that of the lawyer—which cannot be transplanted from country to country or language to language without complete retraining.]

International Monetary Fund. Balance of Payments Yearbook. 1938. 1946. 1947. Washington D.C.: International Monetary Fund, 1949. 11″. Pp. 383. Cloth $5.00, paper $4.00.

[This volume is the first of a series in which the I.M.F. will make available balance payments information which it has gathered for operating purposes. It is, in effect, the successor of the series of annual reports on the Balance of Payments published before the War by the League of Nations, and follows them closely in format and appearance. It has, however, the added advantage of being based on standard schedules used for reporting balance of payments data to the Fund. The most interesting addition is an attempt to provide summary tables showing the balance between sections, larger sections and countries. In collaboration with E.C.E. the Fund has prepared estimates of the balances of Europe as a whole with the principal trading areas of the world. Somewhat similar estimates have been made by the Fund at the request of the Economic Commission for Latin America of the transactions between Latin America and the rest of the world. It is immensely to be hoped that the statisticians of the Fund will have the energy, the resources and (what is most necessary) the moral courage to take the next step forward and attempt a total matrix for the whole world. This will not only reveal relationships of great significance and importance; it will also enable us for the first time to test the mutual consistency of the various individual countries' estimates.]

International Labour Office. Third Report of the International Labour Organisation to the United Nations. Geneva and London: International Labour Office, 1949. 9½″. Pp. iv + 192. 5*s.*

[A summary of the activities of the International Labour Organisation submitted to the United Nations. It covers the period April 1948, to February 1949.]

Year Book of Labour Statistics, 1947–48. Tenth Issue. Geneva and London: International Labour Office, 1949. 12″. Pp. xv + 303. 15*s.*

[This tenth issue of the Year book of Labour Statistics summarises the principal labour statistics of some sixty countries. It includes new tables of social security and has adopted a new industrial classification. But it emphasises that its practice in this is limited by that of the individual countries, and, in default of an internationally agreed classification; it can do no more than attempt a uniform order and such general headings as are common to all.]

United Nations.

Economic Survey of Asia and the Far East 1948. Lake Success: United Nations (H.M. Stationery Office), 1949. 9″. Pp. xviii + 289. 10*s.*

[Reviewed in this issue.]

Facts about U.N.I.C.E.F. New York: United Nations International Children's Emergency Fund, 1949. 10½″. Pp. 25.

[The United Nations International Children's Emergency Fund, in its second year of operation, has four main tasks: to provide a daily supplementary meal, or other forms of aid, for some 4 million children and mothers in twelve of the poorer European countries, most of them in Eastern and South-Eastern Europe; similar aid in Palestine; to expand its work in China, India, the Philippines and Japan; to open out a new field of work in Latin America.]

Guide to the United Nations Charter. Second edition. Lake Success: United Nations, 1948. 9″. Pp. 57. 50 cents.

[A popular and illustrated account of the genesis of the Charter, through the various stages—St. James's Palace, the Atlantic Charter, the United Nations Declaration, Moscow and Teheran, Dumbarton Oaks, San Francisco. This is followed by a simple explanation of the Charter, the organs of the United Nations, their procedure, and the various subsidiary organisations.]

Inflationary and Deflationary Tendencies, 1946–1948. Lake Success: United Nations, 1949. 9″. Pp. 52. 2*s.*

[This report argues that, while in 1948 inflationary conditions were still prevalent in a large part of the world, the pressures were much less than in previous

years. The increased supply of food due to the good harvests of 1948 are, moreover, a powerful anti-inflationary force that will principally affect 1949.]

Technical Assistance for Economic Development. Lake Success: United Nations (London: H.M. Stationery Office), 1949. 9″. Pp. viii + 328. 12*s*. 6*d*.

[This report was prepared by a working party of experts to give effect to a resolution of the Economic and Social Council calling for a comprehensive and co-operative plan of technical assistance for economic development. Its first part sets out the objectives and nature of the programme and the problems of organisation and finance. The second part gives the detailed proposals of the United Nations and of each of its associated agencies.]

UNITED NATIONS ECONOMIC AND SOCIAL COUNCIL. Economic Development of Underdeveloped Countries. Lake Success: United Nations, 1949. 13″. Pp. 34 and appendices.

[A roneo-ed report prepared for the Economic and Social Council.]

What the United Nations is doing. *Economic Commission for Asia and the Far East.* 1949. Pp. 19. *World War on Tuberculosis.* 1948. Pp. 17. Lake Success: United Nations. 7½″. 15 cents.

[The first of these pamphlets is a short popular account of the work of E.C.A.F.E., and the second an illustrated account of the International Tuberculosis Campaign and the use of B.C.G. vaccine to prevent tuberculosis.]

World Economic Report 1948. Lake Success: United Nations, Department of Economic Affairs (London: H.M. Stationery Office), 1949. 11″. Pp. xix + 300. 15*s*.

[Reviewed in this issue.]

Postscript on Prices.

The English prices of foreign books given in this book-list are those announced before devaluation. It should not be assumed that they now remain in all cases at the figures given above.

INDEX TO THE ECONOMIC JOURNAL

VOLUME LIX

ARTICLES :—

REVIEWS :—

REVIEWS (*continued*):—

REVIEWS (*continued*):—